



QUARRY LAKES REGIONAL RECREATION AREA

Draft Land Use-Development Plan/
Environmental Impact Report

East Bay Regional Park District
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VISION

The Quarry Lakes Regional Recreation Area will be a place of renewal, where groundwaters are recharged, wildlife habitat is restored and where people come to relax and enjoy themselves.

The reclamation of this industrial site for groundwater recharge and recreation means that, beginning in 1995, many of the steep quarry walls will be reshaped by the Alameda County Water District (ACWD) to be safe and accessible lake shore zones. The gravel banks that once lined Alameda Creek will provide a special place for residents of the Bay Area to picnic, swim and fish at the water's edge, within sight of Mission Peak and away from the urban setting.

The Quarry Lakes Regional Recreation Area is a park for the 21st century; where recharge of groundwater, rapid transit facilities, regional trails and traditional park activities are found side-by-side. A joint use agreement unites a water district and a park district in the complementary goals of serving the public for water supply and recreation needs.



SUMMARY

The western two-thirds of the Quarry Lakes Regional Recreation Area is designated as a Recreation Unit for intensive recreation uses. It includes Greater Lake, Wizard Island and Trophy Lake. The eastern third of the project site includes Lost Laguna and several bird islands, and will be managed as a Natural Unit. These lakes will be connected by the Old Alameda Creek Trail.

Parking and vehicle entry areas will be in the northwest portion of the Recreation Unit, convenient to picnicking and water recreation uses located in that unit. Park development will be phased over time. As funding becomes available, park build-out may be achieved with a parking capacity of 1500 vehicles. Public uses in the Recreation Unit are typically water and picnicking oriented, with a variety of trail loops and connections to Regional Trails.

Active recreational pursuits in the Recreation Unit may include picnicking, seasonal swimming, daycamp uses, children's play facilities, reservation uses, group overnight camping, shoreline fishing, and small boat access and rental. Park concessions may operate these facilities consistent with District Master Plan policies. Trail uses such as walking, bicycling, jogging and running will occur along the levees that separate the lakes. The District will consider appropriate programs and agreements to minimize the public cost of operating this facility.

The Natural Unit will provide for wildlife habitat restoration project in partnership with the Alameda County Water District and interested organizations. Active recreational uses, such as swimming, fishing and boating, will not be found in the Natural Unit. Interpretive functions may occur in both the Recreation and Natural Units.



PURPOSE

The purpose of this Land Use-Development Plan (LUDP) is to designate the uses for the Regional Recreation Area, with criteria establishing public access, park planning units and management policies.

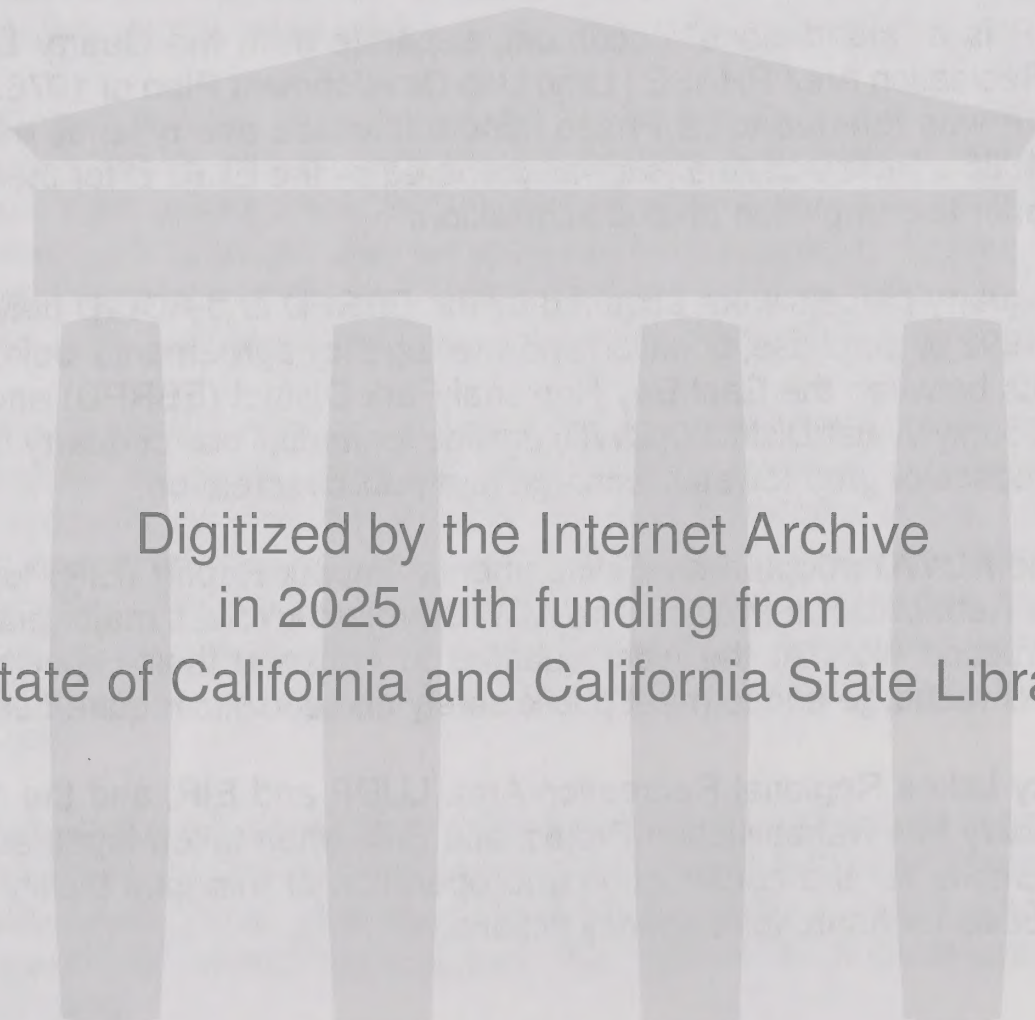
This LUDP is a "stand-alone" document, separate from the Quarry Lakes Regional Recreation Area PHASE I Land Use-Development Plan of 1976. The 1976 LUDP was referred to as Phase I and addressed quarry lands east of BART. In 1985 a Resource Analysis was prepared by the EBRPD for the west quarries, prior to completion of land acquisition.

The west quarry parcels were acquired by the EBRPD and ACWD between 1975 and 1992 by purchase, donation and inter-agency agreements. Joint use agreements between the East Bay Regional Park District (EBRPD) and the Alameda County Water District (ACWD) provide for mutual use of quarry lands for the purposes of groundwater recharge and public recreation.

In 1995 the ACWD adopted an Environmental Impact Report (EIR) for the Quarry Pits Rehabilitation Project. The ACWD project involves major grading and construction work at the west quarries to enhance their capacity for groundwater recharge and to meet public safety and seismic requirements.

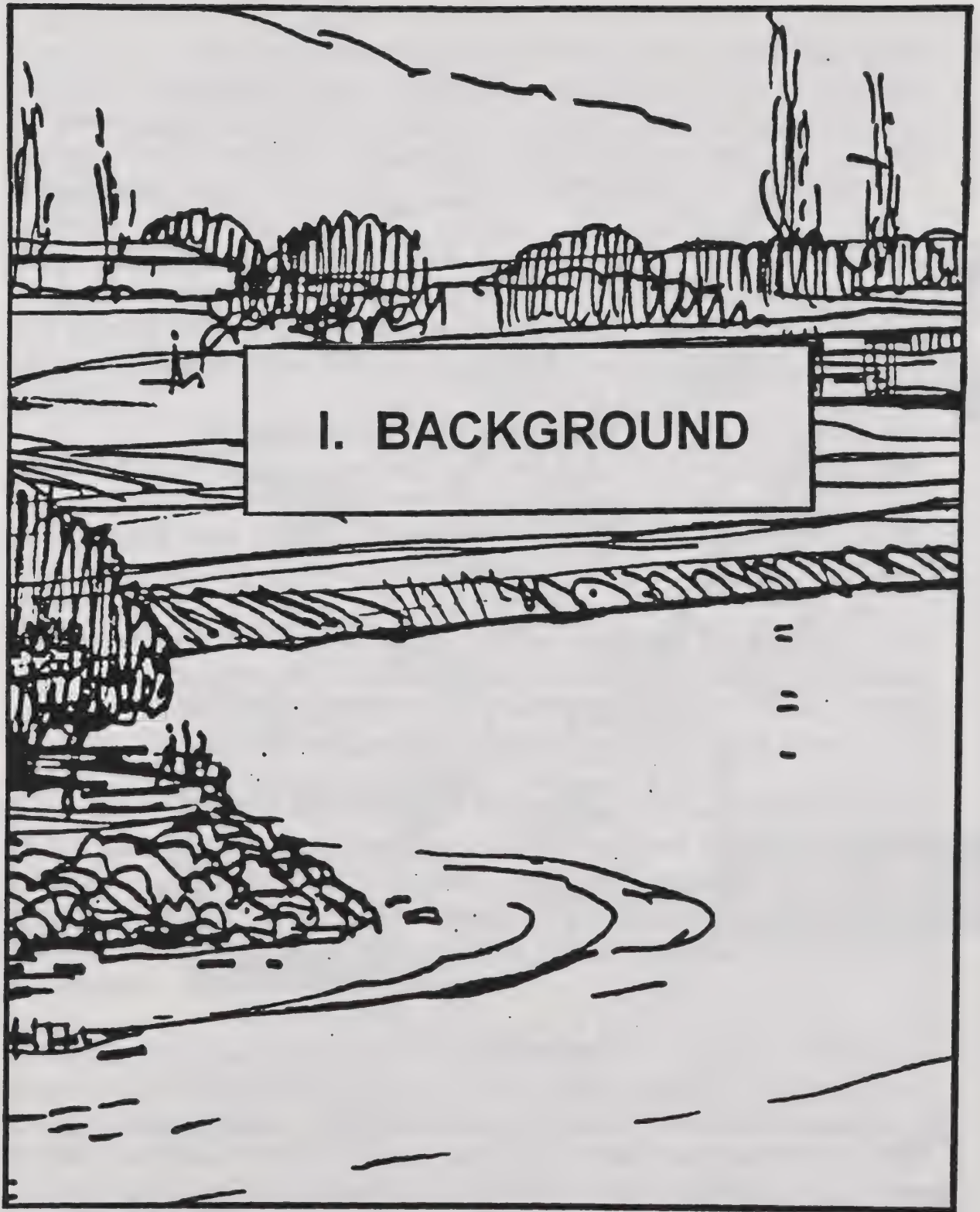
The Quarry Lakes Regional Recreation Area LUDP and EIR, and the 1995 ACWD Quarry Pits Rehabilitation Project and EIR, when taken together, will establish criteria for the construction and operation of this joint facility and provide a basis for future joint agency actions.





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PROJECT LOCATION

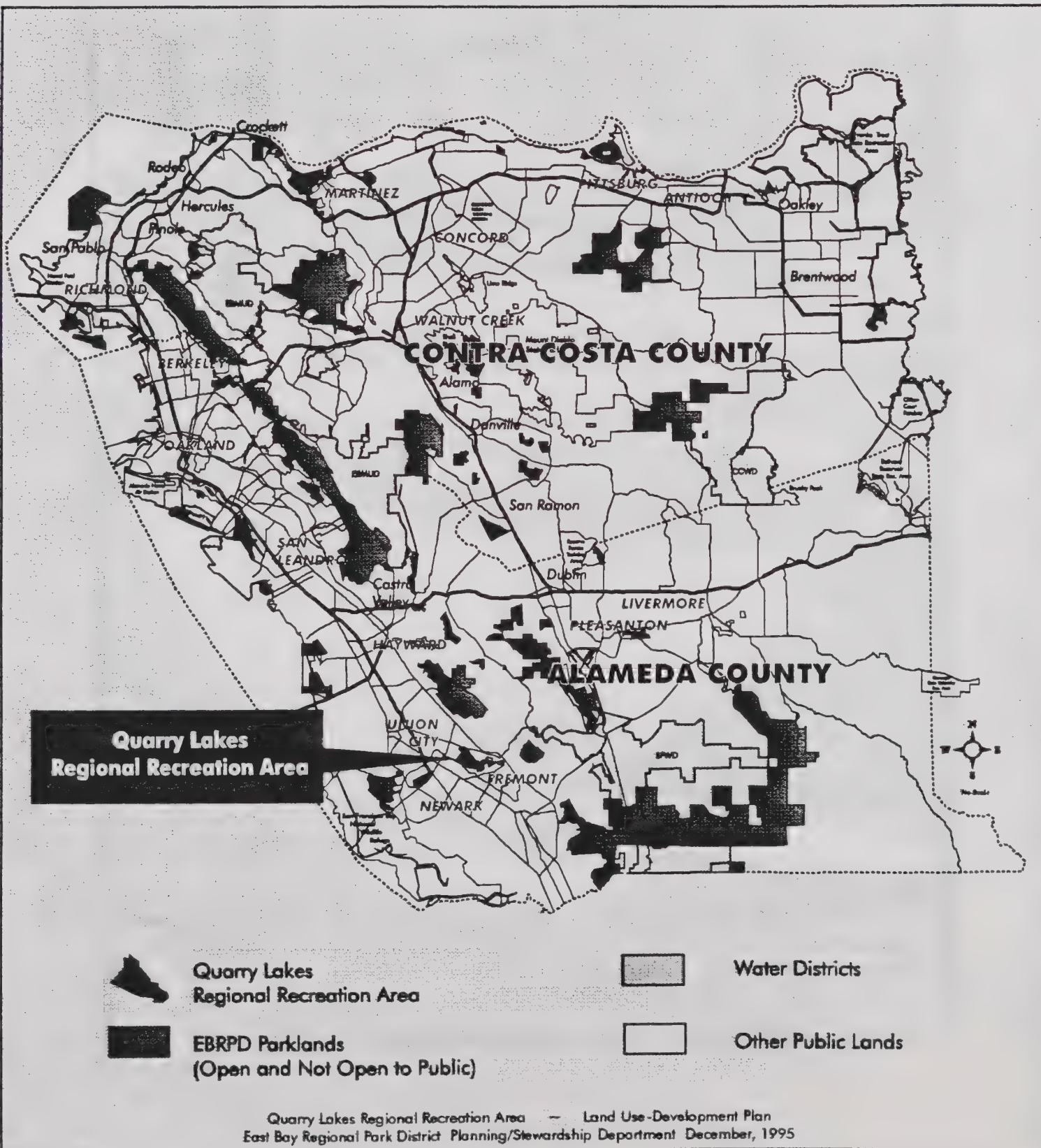


Figure 1

A. SITE DESCRIPTION

Existing Project Setting

The Quarry Lakes Regional Recreation Area is a 450 acre quarry site located on Alameda Creek, in south Alameda County, at the boundary of Fremont and Union City. The site has been closed to public access pending the completion of acquisition and making the site safe for recreational uses.

Visual access to the quarries has been available from the adjacent Alameda Creek Regional Trail and from the elevated BART track over the past several decades. Views of the quarry lakes are a dominant landscape feature from nearby ridgelines above Niles and from Vargas Plateau.

The project site is jointly owned and managed with the Alameda County Water District (ACWD). The residents of Fremont, Newark and Union City depend upon the groundwater from the quarries recharge area for approximately 35% of their water supply.

The project site is in Fremont and primary access to the parkland is by Quarry Lakes Drive and Alvarado-Niles Boulevard in Union City. Local traffic in Fremont can presently access the parkland via Paseo Padre Parkway, an arterial street and Isherwood Way, a collector street.

Alvarado-Niles Boulevard becomes Niles Boulevard immediately south of the park entry road, where the boulevard crosses the boundary into Fremont. The majority of the northbound traffic to the parkland from eastern Fremont, I-680, Niles Canyon and Santa Clara County can access the park via Niles Boulevard, Nursery Avenue and Mission Boulevard.

Alvarado-Niles Boulevard north of the park entry road part of the major crossroads in downtown Union City. It is directly linked to the Dumbarton Bridge, I-880, Decoto Road and Mission Boulevard/I-580. The majority of the southbound traffic to the parkland will be from north Alameda County, Contra Costa County, San Mateo County and San Francisco County and can access the park via Alvarado-Niles Boulevard.

SITE LOCATION

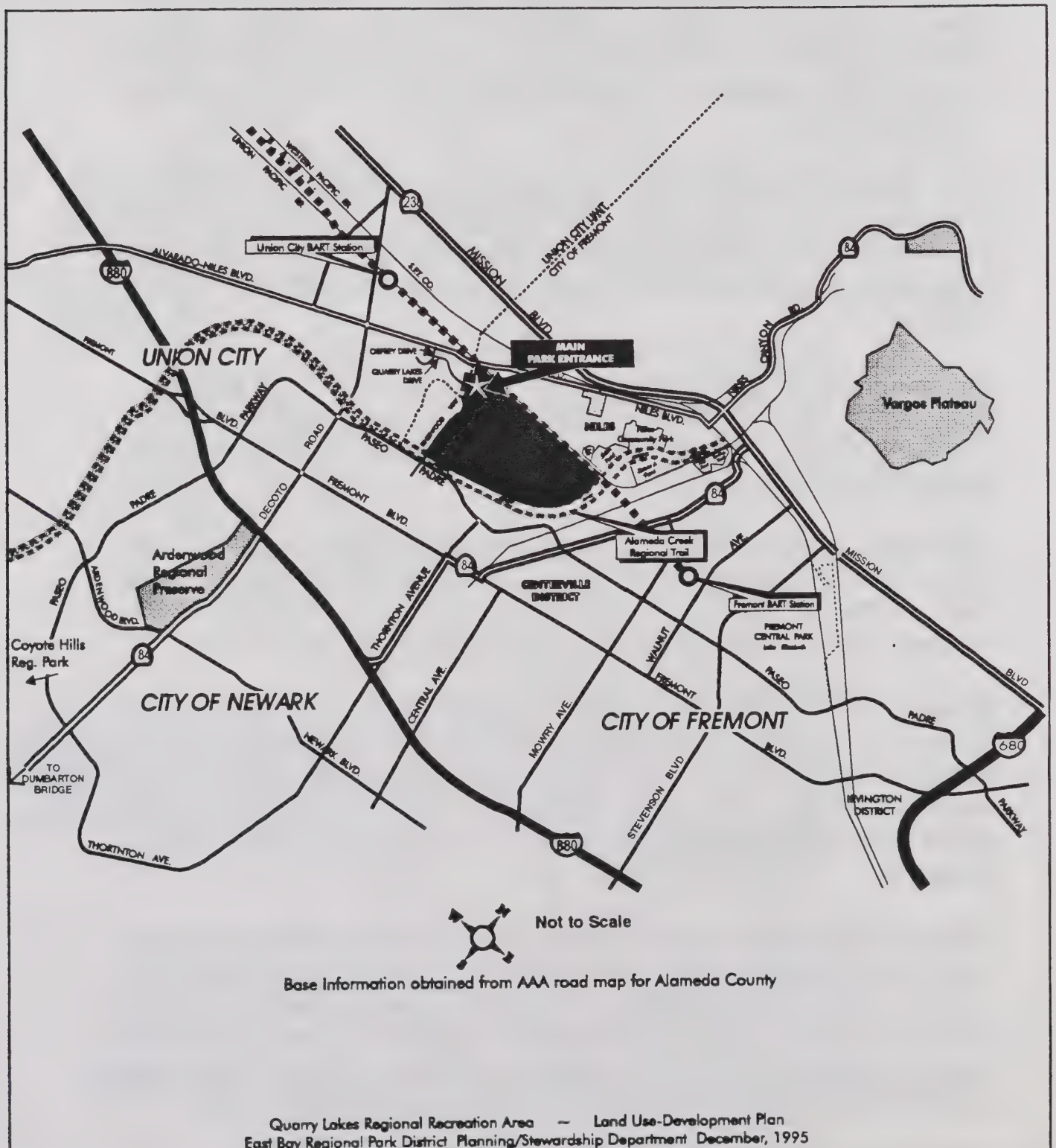


Figure 2

BART alignment parallel the east parkland boundary and serves commuters in the San Francisco Bay Area. Amtrak parallels the south boundary and serves cities on the Capitol Route. The BART stations are located adjacent to the Union City and Fremont Central Business Districts, and the Amtrak Station is located in Centerville. All of these stations are located a mile or less from the project site.

Proposed transportation improvements in the immediate vicinity include Caltrans projects for Route 84 alternative alignment, and widening of Route 238-Mission Boulevard.

Neighboring Residential Development

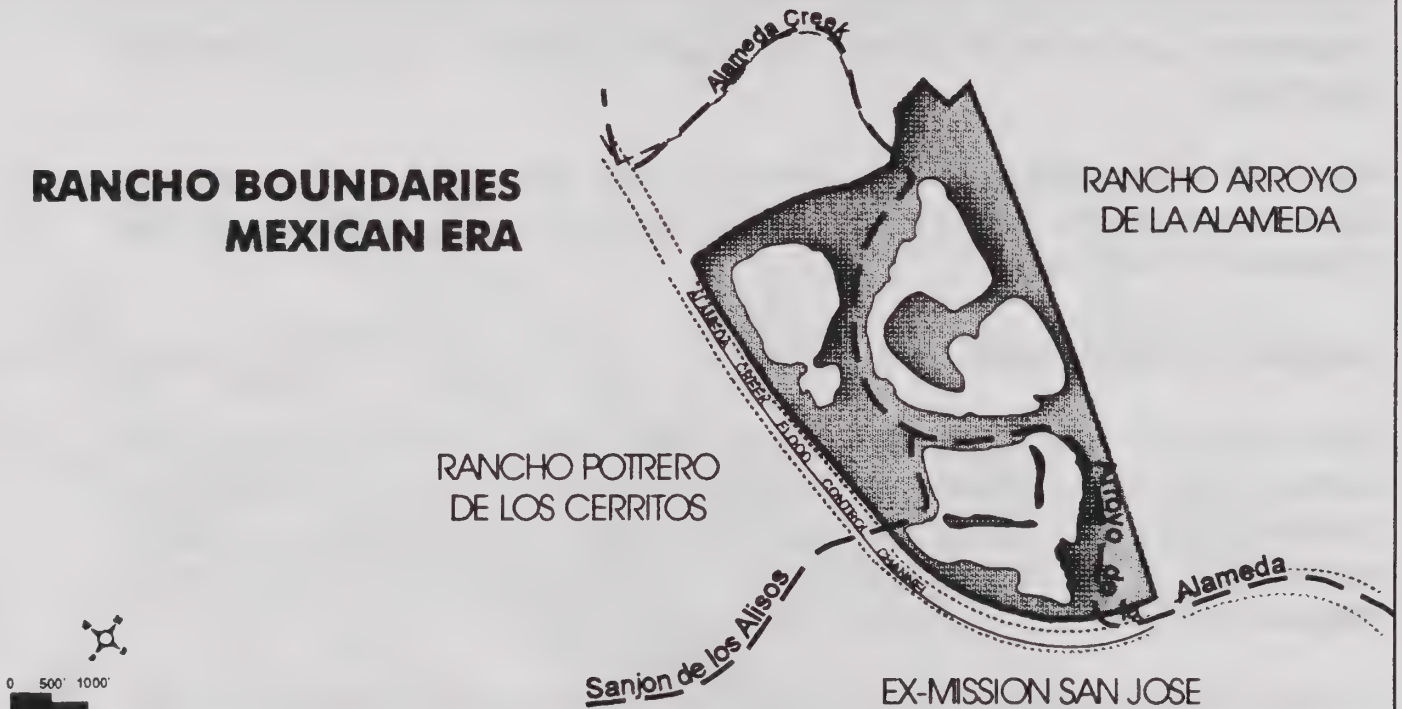
Older neighborhoods (pre-World War II) associated with early townsites are located north of the project site in Niles and Decoto, and to the south in Centerville, within a mile of the project site. More recent housing in Niles is separated from the project site by the elevated tracks of the Union Pacific Railroad and BART.

The most recent single family residential housing in the area is adjacent to the Quarry Lakes and dates from the 1980's, as do the higher density housing areas on the south side of the Alameda Creek Flood Control Channel. The Quarry Lakes Regional Recreation Area has been in General Plans as a potential park since the mid-1950's. Residential areas have grown up around the quarries since the flood protection status gained in 1972 allowed zoning of residential uses in previous floodplain areas in Fremont and Union City.

From within the Quarry Lakes Regional Recreation Area views of residential areas are very limited. The viewer's horizon is dominated by the size of the park and the fact that elevations are lower in the park than surrounding areas as a result of the mining extraction process. Open views of the East Bay Hills, Mission Peak and Calaveras Ridge are a valuable park resource and key to the sense of isolation that enhances the park character.

HISTORIC BOUNDARIES

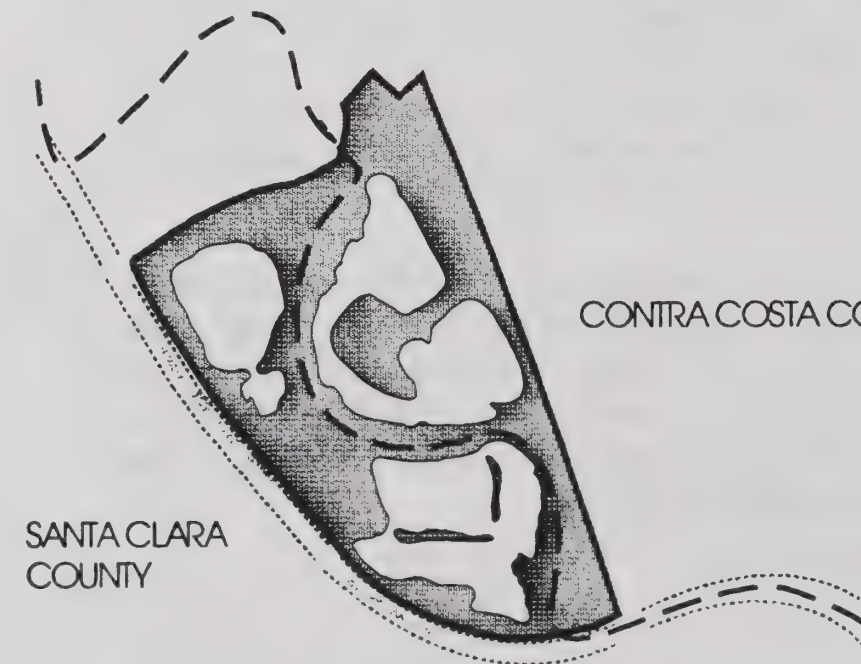
RANCHO BOUNDARIES MEXICAN ERA



BOUNDARY LANDS PRIOR TO 1853

CONTRA COSTA COUNTY

SANTA CLARA
COUNTY



Quarry Lakes Regional Recreation Area ~ Land Use-Development Plan
East Bay Regional Park District Planning/Stewardship Department December, 1995

Figure 3

B. REGIONAL CONTEXT

Historic Boundary Lands

In earlier times, creeks were often used to divide properties. Quarry Lakes Regional Recreation Area incorporates the historic boundaries of two Mexican ranchos and the ex-Mission San Jose lands. Cattle ranching in the Mexican era was headquartered here with 6 adobes for Don Jose de Jesus Vallejo, the rancho vaqueros and their families located on upland sites in the vicinity. The closest adobe still stands on its original site. It has been restored and is located in the California Nursery Historic Park, a half mile to the north of the quarries.

Alameda Creek was also the original boundary between Contra Costa and Santa Clara counties. Alameda County was carved out of these two counties in 1853 and named after the creek that drains it.

This boundary area was long associated with patterns of flooding, agriculture and mining. With the exception of the more easily forded part of the creek at the mouth of Niles Canyon, the floodplain of Alameda Creek was avoided for development until late in the 20th century.

In 1956 Alameda Creek served to largely define the boundary between Union City and the new City of Fremont, a dividing line reinforced by the planning and construction of the Alameda Creek Flood Control Channel between 1955 and 1972.

Flood Control Project

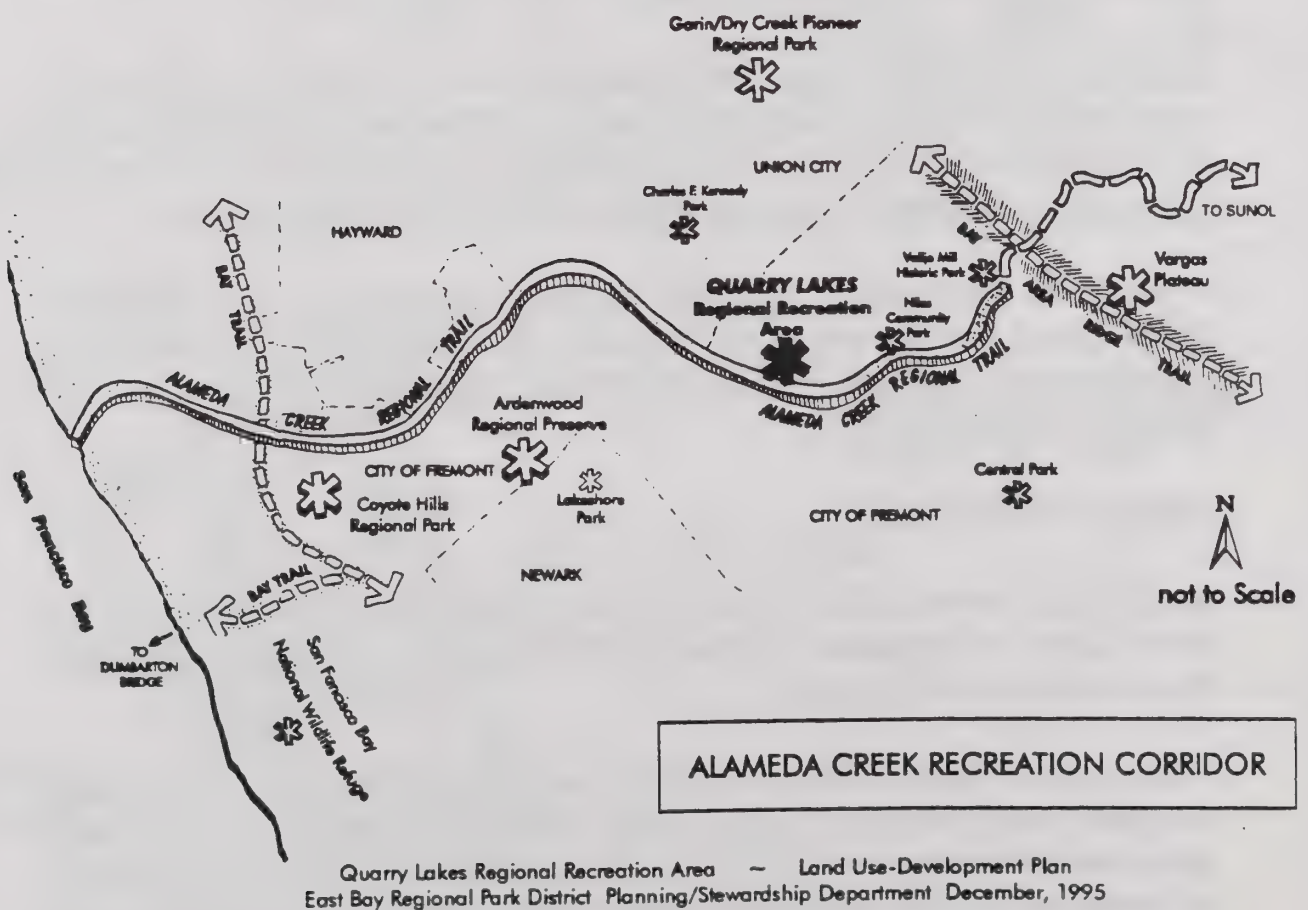
In 1972 the Alameda Creek Flood Control Channel was completed by the Army Corps of Engineers to the immediate south of the site, subverting flows from the old channel.

The design of the flood control channel was a model project at the time, as it was one of the first Corps projects to incorporate public access and ornamental planting into the design of levees. The channel cross-section is designed for the combined capacity of peak flood conditions and failure of several dams upstream.

Recreation Corridor Opportunities

Today Alameda Creek is the backbone of a recreation corridor between Niles Canyon and Coyote Hills. Alameda Creek Regional Trail was completed in 1976 and follows both levee sides of the flood channel, a six mile distance from the East Bay Hills to San Francisco Bay. It connects to the Bay Area Ridge Trail below Vargas Plateau, and to the Bay Trail at Coyote Hills. The central portion is characterized by the combined 630 acres of land and water of the Quarry Lakes Regional Recreation Area.

This recreation corridor closely links a great variety of regional trails, regional parklands, state, federal and local open space facilities and is a potential alignment for the Juan Bautista De Anza National Historic Trail.



Park Users

The East Bay Regional Park District includes within its boundaries the entire land area of Alameda County and Contra Costa Counties. The location of the Quarry Lakes Regional Recreation Area in the South Bay means that residents of Santa Clara and San Mateo Counties may also be frequent visitors to the park.

The criteria for Regional Recreation Areas includes their availability for intensive recreation use, particularly water oriented recreation. District visitor surveys have confirmed that use of all Regional Recreation Areas and lakes in the District serve a larger public outside its boundaries. For example, residents of the County of San Francisco are regular users at Lake Temescal and residents of Santa Clara and San Mateo Counties are regular users of Shadow Cliffs Regional Recreation Area and Lake Del Valle.

The park service area (30 minute travel zone) approximates a 30 mile radius from the Quarry Lakes Regional Recreation Area in north Fremont. This service area includes Danville and San Ramon in Contra Costa County. In Alameda County the service area includes the south part of Oakland, San Leandro, Hayward, Union City, Fremont, Newark, Dublin, Pleasanton and Livermore. The majority of these cities are served by Bay Area Rapid Transit (BART), with new alignments presently under construction or in the planning stages.

In Santa Clara County the 30 minute travel radius from the Quarry Lakes includes the cities of Milpitas, San Jose, the City of Santa Clara, Sunnyvale, Mountain View and Los Altos. The Amtrak Capitol Corridor Route serves San Jose, with a station in Centerville immediately south of the Quarry Lakes Regional Recreation Area. Santa Clara County has an estimated current population of 1,606,600 people.

In San Mateo County the park service radius includes Palo Alto, East Palo Alto, Menlo Park, Redwood City, San Carlos, Belmont and the City of San Mateo; with an estimated population of 689,600.

Fremont is the fourth largest city in the Bay Area. In 1995 Fremont has an estimated population of 187,600, and Alameda County a population of 1,362,900. Fremont is estimated to be close to build-out, with a projected population of 195,476 in 2000, and a population of 204,568 in 2010.

PARK SERVICE AREA

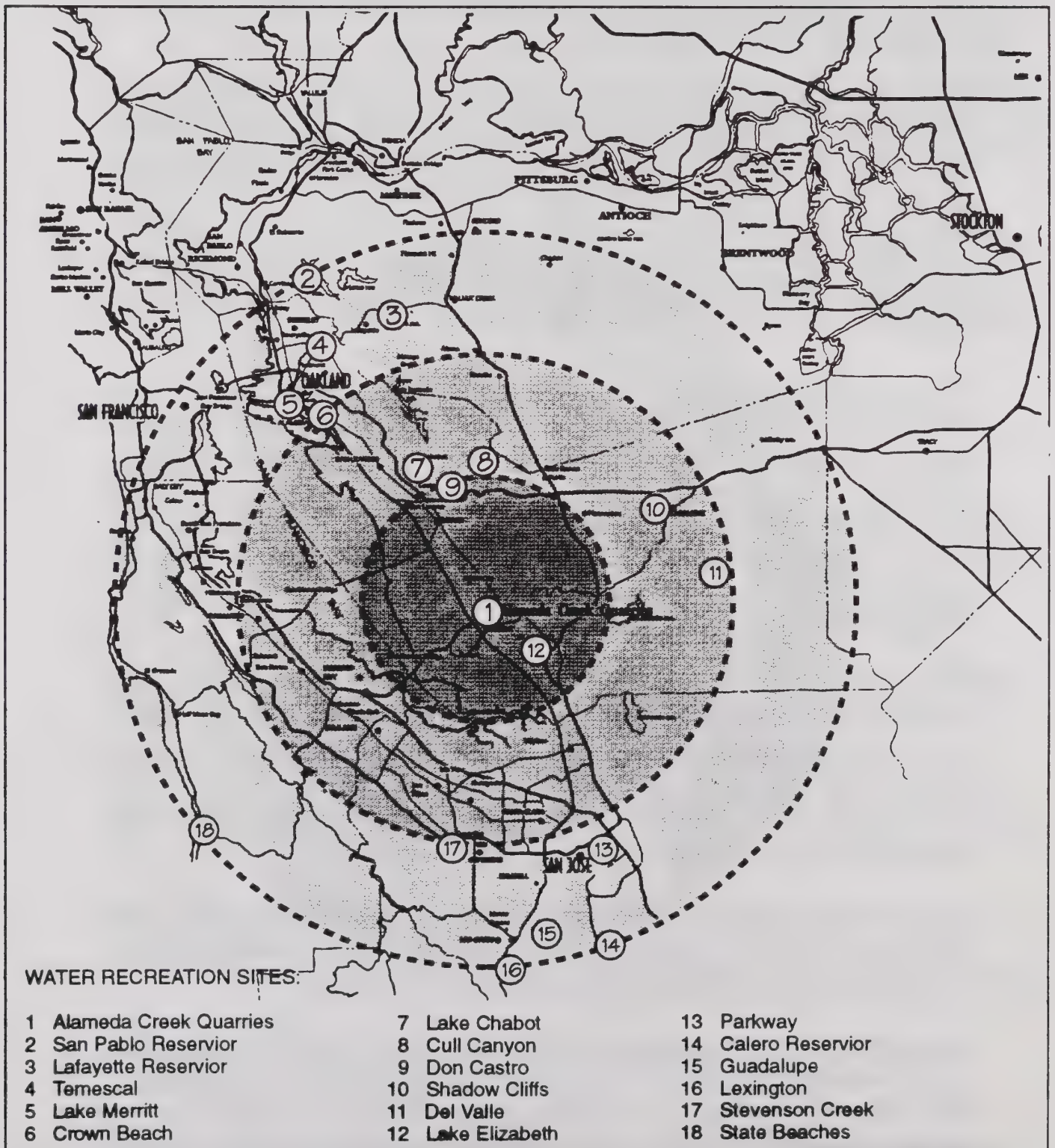


Figure 4

Cultural Diversity

In 1994 the District formally adopted a Master Plan Policy on Cultural Diversity, stating that "the District will continue to adapt its services and programs in response to changes in the East Bay's resident population, recognizing that the cultural diversity of the District is expected to increase due to complex social and economic factors."

The Association of Bay Area Governments (ABAG) prepared statistics for the District in 1992, based on the 1990 census. The statistics were summarized for the West Metropolitan Section (Oakland to Crockett), South Metropolitan Section (San Leandro to Fremont and Livermore) and Diablo Section (Dublin to Martinez and Byron).

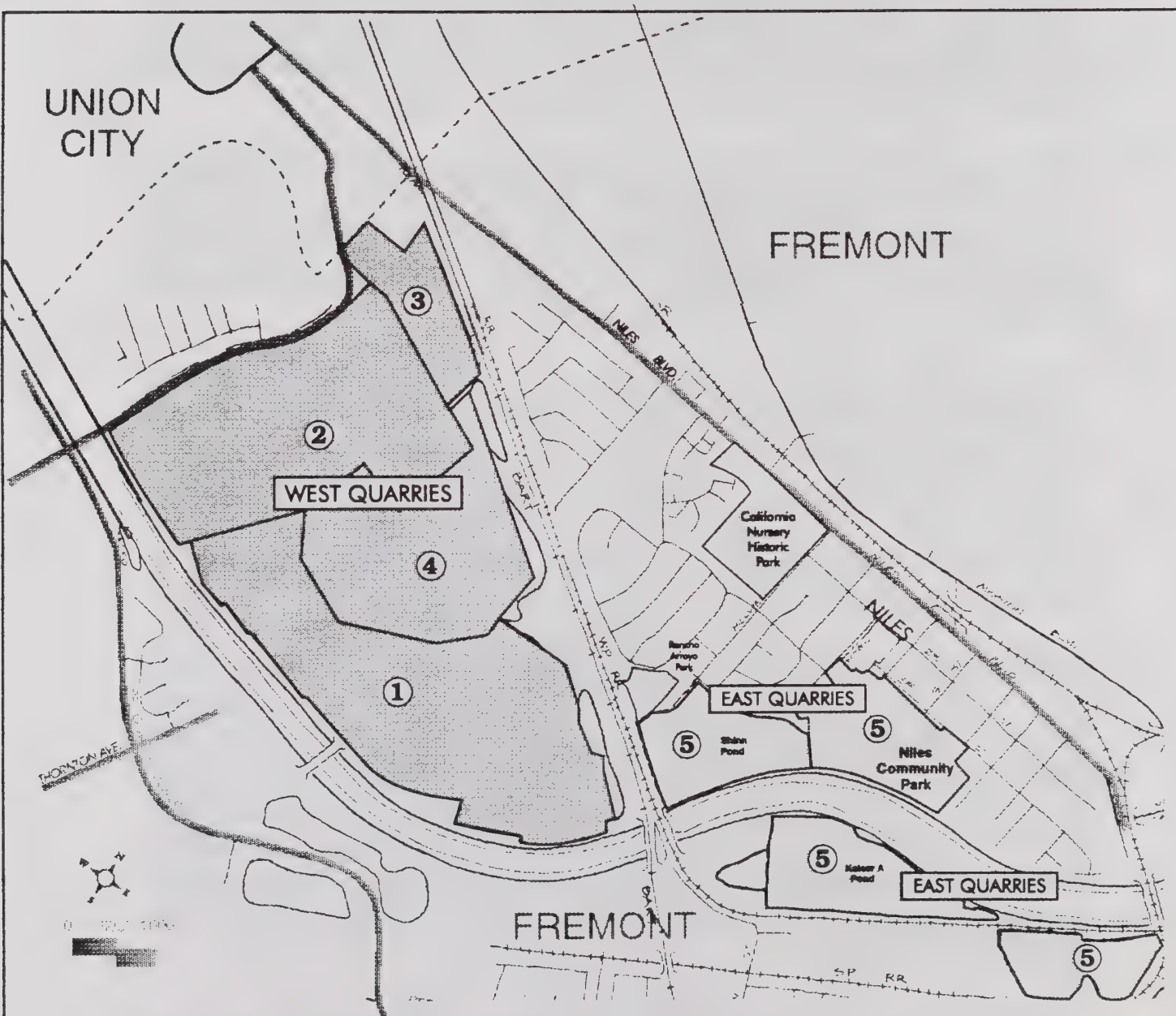
The South Metro Section approximates the 20 minute service area for the Quarry Lakes Regional Recreation Area. In 1990 it contained a third of the District's population of just over 2 million residents. This section includes 39% of the Hispanic population, 12% of the African-American population, 37% of the Asian population, 46% of the Filipino population and 57% of the Asian Indian population, based on overall population counts for each ethnic group found in the two counties.

The ABAG statistics also compiled language statistics for the District in 1992. Of 11,254 Portuguese speaking residents in the District, 71% resided in the South Metro Section, mostly between north Fremont and San Leandro. Of 15,024 Indic language speakers in the District, 60% of them reside in the South Metro Section, particularly in the area of north Fremont. Of 153,000 Asian language speakers in the District, 53,061 or 35% of them are located in the South Metro Section. Of 161,323 Spanish language speakers in the District, 54,070 or 34% of them are located in the South Metro Section.

The Fremont Unified School District supports a nationally recognized Bilingual Education program in Spanish at a quarter of its elementary schools, and a Mandarin Bilingual program in the Ardenwood area.

The census tracts in Fremont and Union City, located within walking distance of the Quarry Lakes Regional Recreation Area, had a population of 65,000 in 1990. Approximately 6% of the nearby population were Hispanic and another 6% were Asian/Pacific Islander origin. This walking radius extends to the BART Stations in Fremont and Union City, each less than a mile from the park.

QUARRY PARCELS



- ① Lone Star Company
- ② Rhodes - Jamieson
- ③ Various Companies

- ④ California Nursery Company
- ⑤ East Bay Regional Park District
Land Use-Development Plan
Phase 1-1976

Quarry Lakes Regional Recreation Area ~ Land Use-Development Plan
East Bay Regional Park District Planning/Stewardship Department December, 1995

Figure 5

C. PARTNERSHIP WITH ALAMEDA COUNTY WATER DISTRICT

Alameda Creek Watershed

Alameda Creek drains one of the largest watersheds in the Bay Area, including the south slopes of Mount Diablo and the north slopes of Mount Hamilton, an area of 633 square miles. The downcutting force of this drainage has been greater than the uplift of the East Bay Hills, as defined by the retention of its sinuous course through Niles Canyon. Peak storm events brought major gravel movements from the watershed, depositing them at the entrance to the canyon. These deposits are layered with finer textured silts and clays carried by slower waters, to a depth of 1,400 feet.



The creek was described in 1776 by the De Anza expedition as an arroyo with deep pools and a thick growth of trees such as cottonwood, sycamore and live oak. Alameda Creek historically wound through the project vicinity, and is marked today by the Old Alameda Creek Trail and acquisition property lines.

Mining in the Creek Banks

Gravel extraction was first undertaken in the banks of Alameda Creek for construction of railroad beds and early industries. These included the first railroad route used by Central Pacific in the East Bay (1863) and the first transcontinental railroad, located in Niles Canyon (1869). Gravels were hauled by train, using a spur line directly into the gravel deposits such as what is now Shinn Pond. Gravels from this quarry were used in the construction of the Greek Theater at the University of California, Berkeley.

Bulk gravel extraction west of the BART tracks occurred in the boom period after World War II, with hauling by trucks on surface roads such as Fremont Boulevard (the first Highway 17) and later the Nimitz Highway, as competitive haul routes to the railroads. Operators of these

hydraulic mining operations included the Rhodes and Jamieson Company and the Lone Star Company. The Quarry Lakes played a significant role in supplying materials for infrastructure expansion in the East Bay in the 1940's to the 60's, including all the fill and topsoil for the Alameda Naval Air Station in 1940.

Water Supply Management

Given the depth and the water holding capacity of these gravels, the aquifers of the Niles Cone are a natural underground reservoir and key to water supply strategies for the Alameda County Water District since its formation in 1914. Today, approximately 35% of the local water supply derives from these aquifers.



By 1914, water extraction from the Alvarado wells was serving the rapidly growing Oakland area prior to acquisition of the Mokelumne Watershed, and recharge waters from the upper Alameda Creek watershed were being siphoned off through the Sunol Aqueduct by the Spring Valley Water Company, prior to its acquisition by the San Francisco Water department and the construction of the Hetch Hetchy. By 1911 the artesian wells near Niles at the center of the Niles Cone were beginning to lose pressure. By 1914 reports of saline intrusion in the Niles Cone were being received.

The Alameda County Water District formed as the result of these threats of water draft from the Niles Cone. At that time the Washington township area, that still defines the ACWD service boundaries, was the most productive agricultural area in the state. Farming on the Alameda Creek floodplain had evolved from the production of dryland wheat to irrigated orchards, nurseries, alfalfa for dairy production, tomatoes and truck gardening for both international and bay area markets.

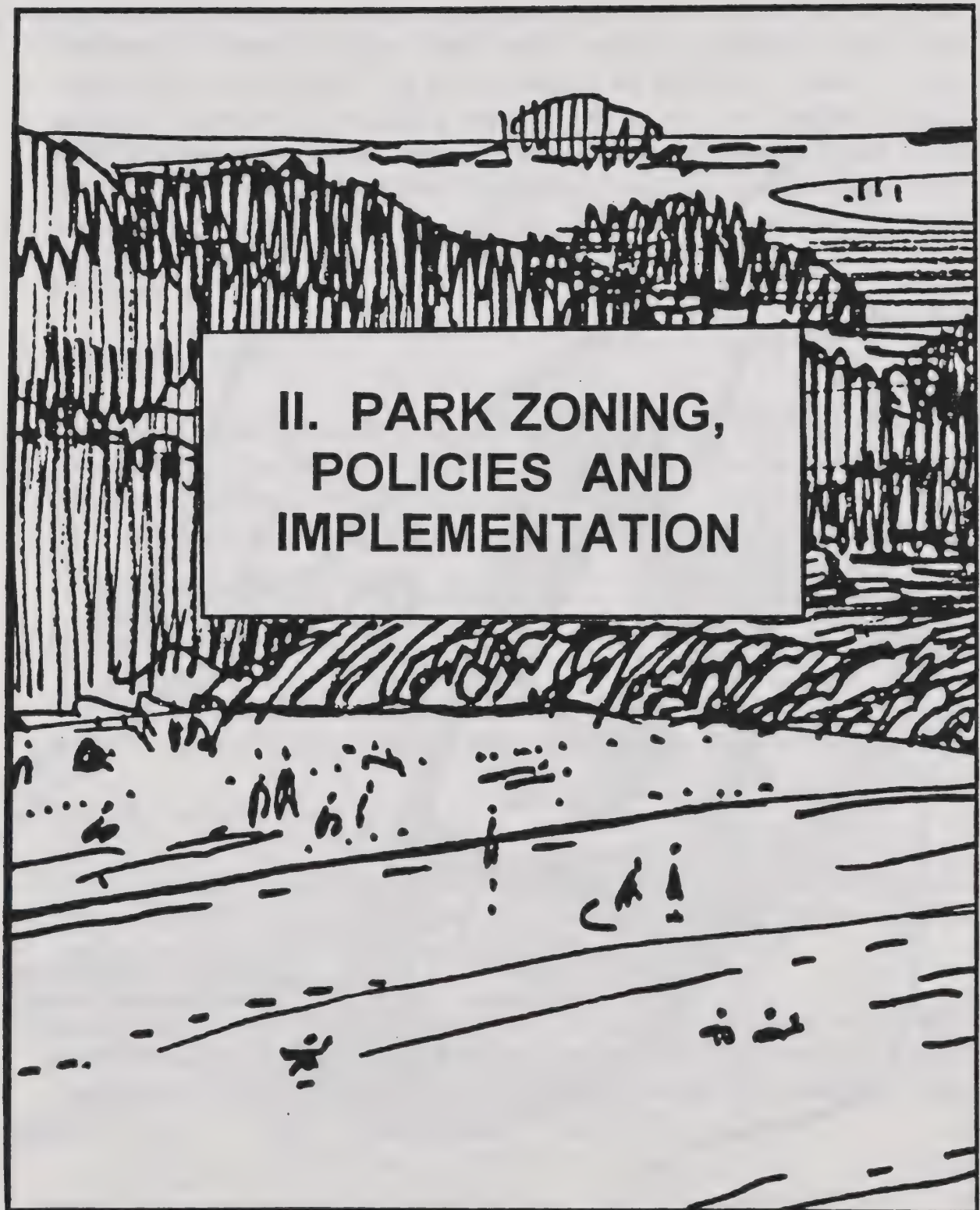
In 1919 the first groundwater recharge operations in Alameda Creek were attempted, with creek diversions into the pits beginning to occur in

the 1930's. In 1962 the ACWD was the first State Water Contractor to receive water from the State Water Project; this supply was directly diverted to Alameda Creek to recharge the aquifers by percolation. Today groundwater recharge occurs primarily in the quarry pits.

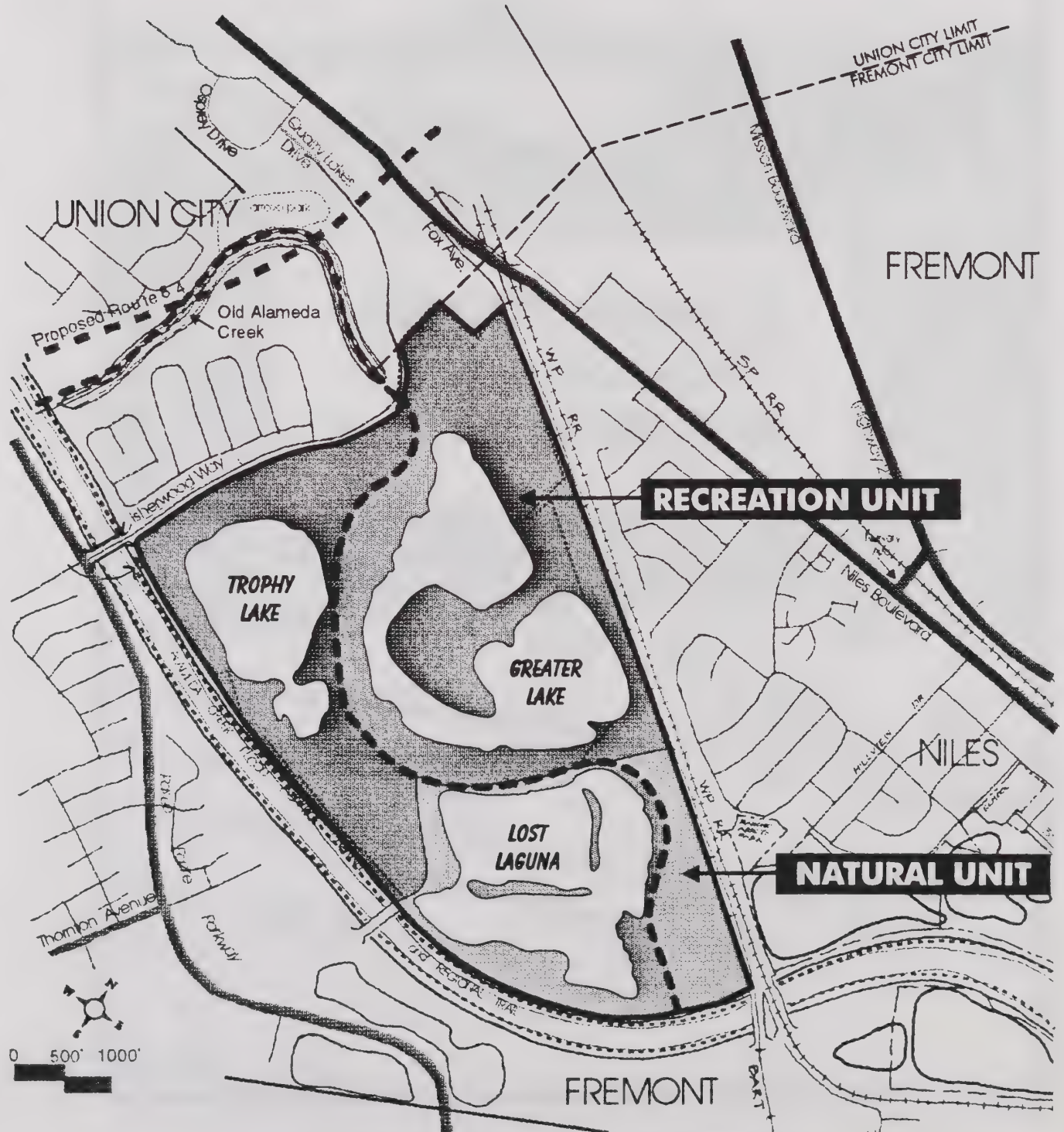
The project site is connected to the flood control channel by a water intake pipe via Shinn Pond/Pit A. This intake is managed by the ACWD by closing a valve during flood conditions and opening to accept recharge waters after peak flows have passed and suspended materials have settled.



Within the project site the lakes are also connected by pipes and filter systems, so that the level of all pits fluctuate together. The water recharge cycle peaks during the winter rainy season when a portion of the creek runoff is diverted into the Quarry Lakes. The water levels in the lakes may be raised to a maximum water level of 35 feet above sea level (a.s.l.). Once the rains stop the water in the lakes percolate through the ground to recharge the underlying aquifer. The drawdown of the lake water levels continues through the dry season, ranging from a typical elevation of 25' a.s.l. at the beginning of the summer season and 15' a.s.l. at the end of the summer season. Elevations of the water table may be drawn as low as 5' a.s.l. in drought years. In other words, lake depths may typically drop 20' in surface elevation during the warm months. The fluctuating water recharge cycle is a critical component to be considered in the design and operation of the recreation area.



LAND USE ZONING



Quarry Lakes Regional Recreation Area ~ Land Use-Development Plan
East Bay Regional Park District Planning/Stewardship Department December, 1995

Figure 6

D. PARK ZONING

The EBRPD Master Plan provides criteria for uses in Regional Recreation Areas. These uses must include regionally significant recreational activities. This classification of parkland allows for the intensive recreation, including improvements such as swim beaches, small boat marinas, bathhouses, artificial lakes and playing areas in the Recreation Unit. The Regional Recreation Area should provide outdoor education facilities wherever feasible. Where the parkland is large enough, and its features appropriate, the District may also designate a Natural Unit.

Recreation Unit

The western two-thirds of the Quarry Lakes Regional Recreation Area is zoned as a Recreation Unit, suitable for a variety of lake recreation uses, trail loops, parking, service yard and general active recreation. The main park entrance and exit are located in the north part of the Recreation Unit.

Natural Unit

The eastern third of the park is zoned a Natural Unit and provides for passive recreation including trail links to Alameda Creek Regional Trail.

City of Fremont Zoning

The project site, the adjacent Alameda Creek Flood Control Channel and the adjacent Quarry Lakes Regional Recreation Area, including Niles Community Park, is zoned Institutional Open Space.

Other Institutional Open Space in the City of Fremont includes Central Park, Ardenwood Regional Preserve, Coyote Hills Regional Park, Niles Community Park and numerous other community and neighborhood parks.

FACILITIES

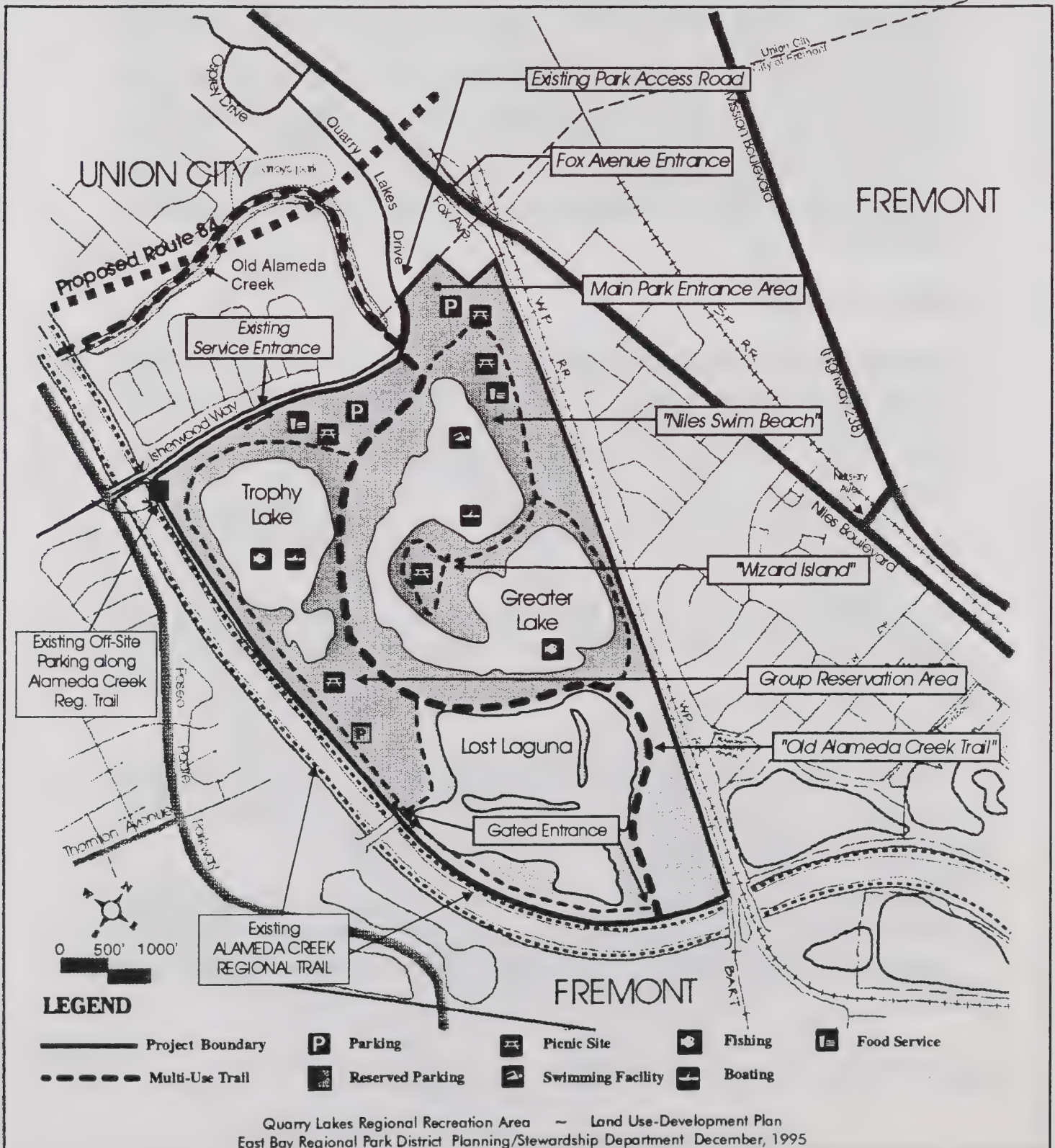


Figure 7

E. RECREATION DEVELOPMENT POLICIES

Acquisition and Access in the Recreation Unit

The Quarry Lakes is adjacent to public agency lands, BART to the north, Caltrans to the west and Alameda County Flood Control and Water Conservation District (ACFCWCD) to the south and east. The initial park opening plan will be based on existing land parcels managed and owned by the EBRPD and on existing access routes.

Other agency plans, including the Caltrans Highway 84 realignment study and the Union City Decoto Industrial Park Study Area (DIPSA), may modify the existing site access. The District has an interest in maintaining existing access to the Quarry Lakes from Quarry Lakes Drive. If the Route 84 alignment is built at this location the District has an interest in safe and direct access to that trafficway for vehicles, pedestrians and bicycles.

Evaluate land tenure options including surplus Caltrans lands to expand the Recreation Unit to maximize opportunities to provide park entries, exits, circulation, parking, service and emergency access.

Maintain north entrance road access or suitable replacement to Quarry Lakes Regional Recreation Area, should other agency plans in the vicinity have the potential to affect this project.

Facilitate agreements that provide public transit access to the park. This access may include bus service to the parkland, BART weekend stop, other rail access and shuttle options.

Facilitate agreements to provide easement access from BART and ACFCWCD at site edges to develop loop trails.

Cooperate with local public safety strategies to minimize parking in neighborhoods.

Facilities in the Recreation Unit

The Recreation Unit is approximately 300 acres, of which over half are water surfaces and levee sides. It includes the main entrance, secondary entry points, facilities for picnicking, children's play, group reservation area, swimming, non-fuel based boating, wind surfing and fishing. Support facilities including parking, trails, restrooms, equipment storage, utilities, park office and service yard area. Construction and operation of these facilities will be consistent with the appropriate operating program for the park and phased based on the availability of capital and operating funds. The park may be operated by District staff, concessionaires or a combination in accordance with District policy.

The Quarry Lakes Regional Recreation Area is a controlled access facility for vehicles, with the main entrance area on Quarry Lakes Drive. Parking facilities are contained in the Recreation Unit to provide ample parking onsite to minimize overflow effects in residential areas. The project area is presently fenced with gated access points on Alameda Creek Regional Trail, Fox Avenue and Quarry Lakes Drive/Isherwood Way.

Provide parking inside the park in a phased manner, as land and funding become available, with a buildout capacity of 1500 vehicles.

Conform to federal, state and other applicable regulations and guidelines for all new site improvements. All structures to meet requirements of the Uniform Building Code, including seismic requirements. Provide access to park facilities consistent with Americans With Disabilities Act (ADA) and Title 24 requirements.

Consider use of park concessions consistent with District policy. These may include services related to boating, bicycling, fishing, daycamping, and group rental activities or special events.

Provide park structures to serve park uses, including but not limited to restrooms, changerooms, lifeguard facility, boatdocking facilities, baitshop and fishcleaning stations, entry kiosks, security residence, service yard and recreation equipment storage facilities.

Design and maintain a service yard facility at the edge of the parkland.

Evaluate additional facilities or activities on a case-by-case basis to ensure that they do not negatively affect the water recreation emphasis, public access or neighboring uses.

Utilities in the Recreation Unit

Existing utilities serve the project site at the service yard area and Fox Avenue area. The Union Sanitary District has an easement with the EBRPD for sewer mainline connecting Isherwood Way and Fox Avenue. The ACWD Quarry Pits Rehabilitation project provides a bypass for urban stormwater drainage away from the recharge pits, connecting into the Old Alameda Creek Channel, downstream of the project.

Maintain and extend existing utilities in the Recreation Unit. All extension of services to be subsurface.

Provide appropriate lighting for public safety and for special events so as not to interfere with community comfort.

Collect stormflows from the paved parking areas of the park and provide drainage to the Alameda County Flood Control system. Where feasible, surface flows from irrigated areas will be collected as part of the storm drainage system.

Provide a sewer access service for District vehicles and recreation vehicles.

Cooperate with ACWD to incorporate low water use plumbing components into design of park structures and irrigation systems.

Provide a litter and pet waste management system that incorporates all appropriate strategies including education and recycling. Encourage public/private partnerships to facilitate this process.

TRAILS

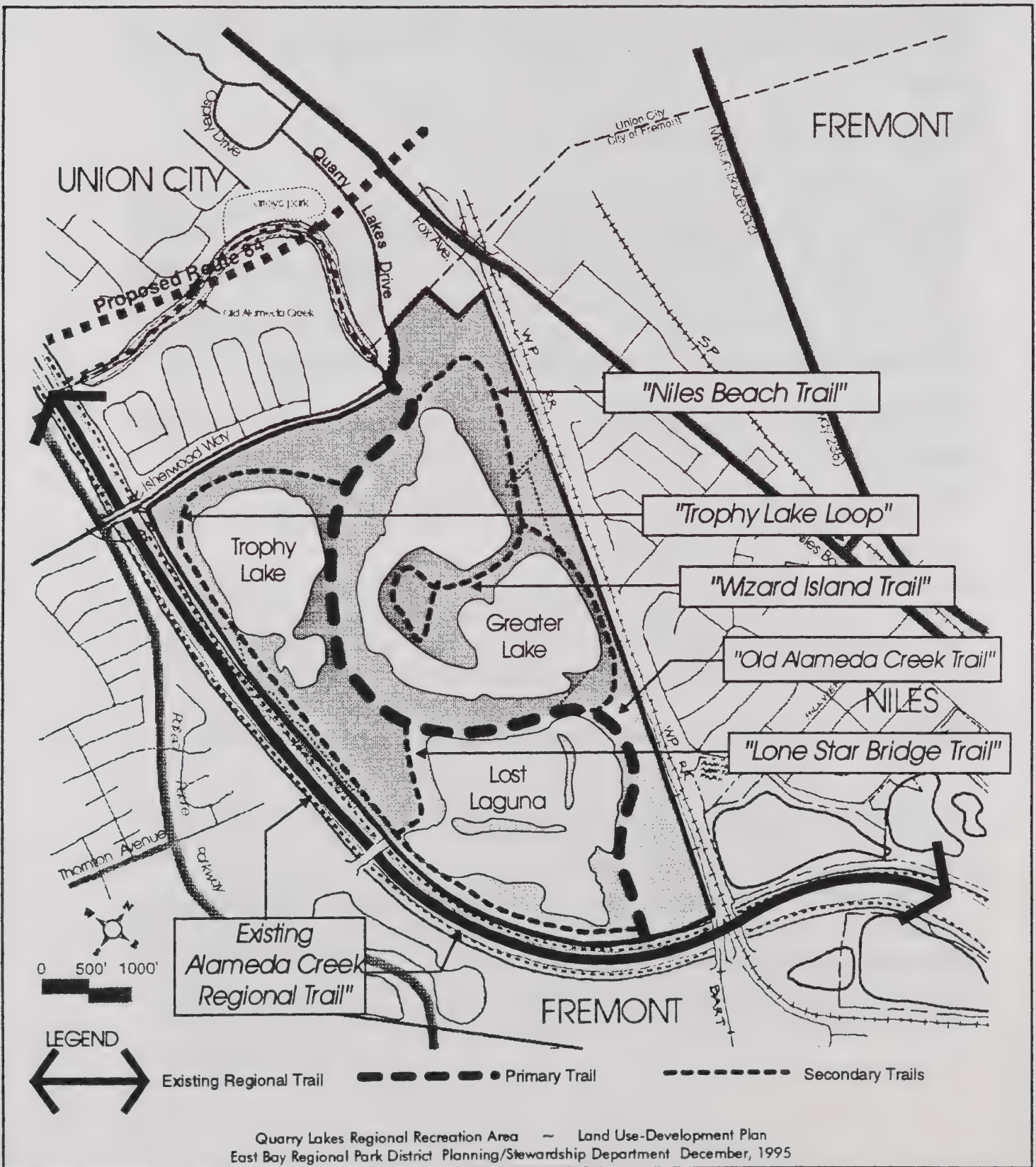


Figure 8

Circulation in the Recreation Unit

The primary circulation system is a multipurpose trail following the Old Alameda Creek Channel. This central circulation spine is linked to a variety of paved and unpaved loop trails within the park.

The Old Alameda Creek Trail is connected at its west end to the Old Alameda Creek Trail, owned by the City of Fremont, and to the Alameda Creek Regional Trail along the Alameda Creek Flood Control Channel to the east. This regional trail has become a local and regional destination for cyclists, walkers and equestrians over the last several decades.

The Quarry Lakes Regional Recreation Area is located in the central portion of the Alameda Creek recreation corridor, inventoried in Appendix A. This recreation corridor is a potential alignment for the Juan Bautista de Anza National Historic Trail.

Provide a central multipurpose trail through the parkland for public, maintenance and emergency uses, to be named the Old Alameda Creek Trail.

Provide multipurpose trail loops around the lakes in the recreation unit. These include the Trophy Lake Loop, the Lone Star Bridge Trail and the Niles Beach Trail.

Provide a multipurpose trail to the landform that extends into Greater Lake. This would be called the Wizard Island Trail.

Pursue the designation of the Old Alameda Creek Trail alignment as a section of the Juan Bautista de Anza National Historic Trail.

Circulation in the Natural Unit

Provide trail loops that connect to the Recreation Unit and to the Regional Trail. Trails typically to be unpaved multipurpose. Gating and seasonal trail closure to be handled on an operational basis.

Cooperate with the ACWD in a trail closure strategy to protect wildlife habitats on an as-required basis.

Interpretive Opportunities in the Recreation Unit

The Recreation Unit may provide interpretive opportunities, particularly near entry areas, multi-use areas and fishing/boating service areas. Topic areas may include prehistory, the Rancho era, mining history and the quarry reclamation process, and to interpret water development in the Alameda Creek watershed.

Explore funding, inter-agency and public-private partnership strategies to develop interpretive programming at Quarry Lakes.

Provide signage, kiosks, demonstration planting, water conservation, interpretation strategies and special events to facilitate outdoor education.



Interpretive Opportunities in the Natural Unit

Cooperate with the ACWD in the installation and maintenance of interpretive signage.

F. RESOURCE MANAGEMENT POLICIES

Visual Resource Management in the Recreation and Natural Units

The views to the nearby hills, Mission Peak, Monument Peak and the ridges of the Sunol-Ohlone Wilderness are a special component of the parkland character. This "borrowed landscape" is a resource that should be valued and protected.

Maintain sightlines to the nearby hills and Mission Peak, avoiding installation of features that block these views from major use areas and major trails.

Provide a viewing area on Wizard Island that allows maximum viewing opportunities.

Plan and maintain attractive park facilities including those that are visible from the raised BART alignment, adjacent trails and roadways.

Landscape Management in the Recreation Unit

The Quarry Lakes has been planned as a park since the 1950's, during which time its terrain has been altered greatly and it has been surrounded by urban uses, construction of the elevated BART tracks and construction of the flood control channel. Views from within and without the park can be modified by the planting of trees and other vegetation.

Cooperate with ACWD to establish drought tolerant and water conservation demonstration plantings and irrigation regimes, including use of specialized turf varieties.

Plant vegetative screens to be used on park boundaries in combination with other screening strategies such as fences or berms.

Develop public/private partnerships for provision of horticulture planting demonstration areas. These may reflect the long history of nurseries and flowering fruit trees in the Washington Township area.

Plant the sycamore, cottonwood and live oak tree groves described by the 1776 Anza expedition for the mouth of Alameda Creek, where site conditions are appropriate.

Develop plantings near entrances and trails that frame and define sightline views to Mission Peak and other landmarks.

Water Management in the Recreation Unit

The Quarry Lakes is in the downstream portion of the Alameda Creek watershed, an upstream area of over 630 square miles between Mount Diablo and Mount Hamilton. The quarrying for gravel coincides with the Niles Cone and its gravel aquifers at the mouth of Niles Canyon.

The water level at the Quarry Lakes is a function of the groundwater recharge and drawdown annual cycle. The groundwater recharge cycle peaks with water levels at the 35' elevation in the winter, 25' elevation in early summer, 15' in late summer and down to 5' elevation above sea level in the fall. The lake depths are typically 70' or greater and retain cooler temperatures at depth. The surface area of the lakes decreases approximately by half during the summer months.

The EBRPD does not control this groundwater recharge process and cannot manipulate water levels for recreation purposes. The joint use agreement between the ACWD and EBRPD provides for cooperative management of water quality monitoring activities and for the EBRPD to conduct water contact recreation programs at the Quarry Lakes.

Monitor water quality at Quarry Lakes in coordination with ACWD, RWQCB and Alameda County Health Department.

Maintain quality and clarity in Greater Lake to sustain any programmed swimming activities during the public swimming period, typically between April and October, consistent with health regulations.

Cooperate with ACWD water management programs, vehicle access needs and construction/maintenance requirements.

Facilitate inter-agency efforts to manage non-point source pollution in the Alameda Creek watershed.

Fishery Management in the Recreation Unit

The lake habitats at the Quarry Lakes range in size from 10 to 70 acres and support a diversity of fish species. The water quality is anticipated to be excellent for maintaining a fishery program. Fishing in the Recreation Unit may include boat rental, trophy fishing, and associated services.

Maximize fishing opportunities in the Recreation Unit.

Foster sustained populations of fish such as largemouth bass and trout. Remove nongame species, such as carp and goldfish, as required.

Minimize shoreline damage from fishing activities with provision for alternative fishing opportunities such as small boat access.

Close lakes, or portions thereof, to fishing as required for habitat protection.

Locate disabled accessible fishing and boating piers in the Recreation Unit.

Explore funding alternatives and public-private partnerships for the construction and maintenance of fishing facilities.

Monitor fishery and fish stocking programs with co-operation of California Department of Fish and Game.

Fishery Management in the Natural Unit

Manage fishery to maintain variety of native stocks that support wildlife populations, especially where fishery is critical to food supply for resident and migrating bird populations

Cooperate with ACWD to protect wildlife nesting opportunities and habitats in the shorezone, including closure of lakes in the Natural Unit to public fishing.

Install weirs and other structures as appropriate for separation of fish stocks.

Habitat Management in the Recreation Unit

The shore zone for the lakes in the Recreation Unit include the levees and the drawdown edge zone that may support vegetation or wildlife habitat. The typical water elevation drop in this zone is 10 feet between winter peak volumes and the beginning of summer, and another 10 feet drop by the end of late summer, depending on annual conditions. These are adverse conditions for revegetation, with annual cycles of submersion and drought. Further, all lakeshore zones that also function as levee damfaces are restricted in the type of vegetation permitted, deep rooting species being a particular concern.

The lakeshore edge in the Recreation Unit is a suitable area for fishing, with slopes typically 2.4:1 or flatter, and that is benched in places. A 1000 foot section of shoreline on the north side of Greater Lake has been designed by ACWD to be as flat as 14:1, to facilitate both water percolation and water access such as swimming.

Manage lakeshore areas used for fishing or swimming in the Recreation Unit in cooperation with ACWD to facilitate access and to maintain conditions that do not adversely affect slope stability or water quality. Cooperate with the ACWD in the revegetation of the lakeshore zone, using native species typical for Alameda Creek (Harvey and Stanley, 1983)

Cooperate with ACWD in the management of levees, consistent with the state regulations of the Division of Safety of Dams, where applicable.

Habitat Restoration in the Natural Unit

Cooperate with the ACWD to restore lake shore habitat where altered by grading and maintenance activities.

Cooperate with ACWD to jointly develop strategies to restore nesting opportunities in the Natural Unit, as described in the ACWD 1995 EIR for the Quarry Pits Rehabilitation Project.

Facilitate partnerships with organizations interested in habitat restoration, wildlife population monitoring and similar activities in the Natural Unit.

Integrated Pest Management in the Recreation and Natural Units

Weedy species typical of disturbed mine and quarry sites can be managed to reduce fire risk and habitat invasion. Introduced species such as numerous types of thistle are found throughout the Quarry Lakes. These and other pest species are not compatible with intensive recreation use or habitat restoration areas.

Develop in co-operation with the ACWD an Integrated Pest Management Plan for the Quarry Lakes Regional Recreation Area, consistent with EBRPD IPM Guidelines, including minimal or no pesticide use.

Educate the public on issues related to feral animals and releasing of animals in parklands

Hazardous Materials in the Recreation and Natural Unit

Hazardous materials should not be stored on site. Fueling of equipment to be conducted away from the lakes and within bermed areas that can contain any spills.

Cooperate with the ACWD to provide an appropriate bermed area for fueling of maintenance vehicles in the Recreation Unit.

Educate the public on issues related to protection of water and air quality, including controlling of hazardous materials that may be used in barbecuing or other activities.



G. PUBLIC SAFETY POLICIES

The District will provide for the safety and protection of parkland users and staff, the protection of natural resources and park facilities, and the protection of adjacent neighbors and their properties in concert with local public safety agencies. Measures employed to manage public safety risks include a vegetation management program, an emergency communications system, a circulation plan that ensures timely ingress and egress, preventive design strategies, and on-site police and fire presence as required. The District's Department of Public Safety participates fully in county and state Fire and Police Interagency Mutual Aid Systems. Special forms of patrol, including helicopter surveillance and response, are used throughout District parklands. The Department also maintains cooperative working agreements with local police and fire jurisdictions to assure prompt response in emergencies.

Emergency Medical Services (EMS) - Fire Services

Develop and implement comprehensive EMS-Fire Services plans including vegetation management, annual fire safety inspections, risk mitigation strategies (e.g., designated fire pits), emergency access and response, and cooperative agreements with local EMS and fire agencies.

Provide a designated swimming area. Provide safety signage, programs and equipment consistent with District procedures.

Cooperate with the ACWD in a vegetation management program, including, but not limited to, brush removal, chipping, slash pile burning and prescribed fire.

Post emergency 911 signing and instructions conspicuously at all telephone locations in the park. Inspect telephone status regularly for posted information and phone function.

Police Services

Install and maintain a radio communication system for park employees.

Develop a traffic circulation system that ensures emergency ingress and egress throughout the facility, including sufficient turnaround space for emergency vehicles in parking areas. Maintain emergency access through the park, connecting to Fox Avenue, Quarry Lakes Drive, Isherwood Way, and Alameda Creek Regional Trail.

Develop and maintain a Park Emergency Services Plan, including procedures for response in common disasters. Coordinate park emergency plans with local agency emergency plans.

Implement a cooperative police services agreement with local agencies to ensure timely emergency response and routine coverage.

Provide police coverage as needed to meet special and seasonal requirements.

Monitor adequate fencing, lighting, and signing throughout the facility.

Enact and enforce alcohol restrictions, consistent with District-wide policies for aquatic facilities.

H. PLAN PRIORITIES

The Land Use-Development Plan sets the stage for the Capital Improvement Program (CIP), anticipating capital projects that may occur in the 20 year life of the LUDP. The projects are prioritized based on the following criteria:

- joint agreement responsibilities with the Alameda County Water District
- urgency related to potential hazards and compliance with regulatory agency requirements
- appropriate concession or operating opportunities to increase the operating support for the facility
- facility requirements for public safety and efficiency of operation
- critical paths, where certain projects must precede others
- construction needs tied to water surface elevation and lake drawdown

Capital funding resources are limited for the projects described in this LUDP. Where cost factors or special funding opportunities change, or where volunteer labor or other partnerships become available, District priorities may also change.

Decisions regarding funding for projects in the LUDP are made as part of the annual District budget process. Approval of the LUDP does not constitute a commitment of funds for project implementation within any given year of the 20 year life of the LUDP. The District will evaluate cost-benefit scenarios prior to the CIP process.

I. PLAN PREPARATION

The Land Use-Development Plan was prepared by Jill M. Singleton, Park Planner, under the direction of Tom Mikkelsen, Assistant General Manager, Planning/Stewardship, Design and Construction; and Maxine Turner, Chief of Planning/Stewardship. Project assistance was provided by Linda Faria, Secretary. Graphics were coordinated by Jill M. Singleton, all map figures were prepared by Josephine Orozco, Planning Technician, landscape sketch by Lew Crutcher, Chief of Planning and Design in the 1970's, and people figures by Nancy Tracy, Public Affairs.



III. DRAFT ENVIRONMENTAL IMPACT REPORT

DRAFT

**QUARRY LAKES
REGIONAL RECREATION AREA
LAND USE DEVELOPMENT PLAN
Environmental Impact Report**

SCH# 95113015

December 15, 1995

DRAFT

QUARRY LAKES REGIONAL RECREATION AREA LAND USE DEVELOPMENT PLAN Environmental Impact Report

SCH# 95113015

December 15, 1995

Prepared for:
East Bay Regional Park District

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**QUARRY LAKES REGIONAL RECREATION AREA LUDP
DRAFT ENVIRONMENTAL IMPACT REPORT**

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1.0 INTRODUCTION

1.1 EIR PURPOSE AND AUTHORITY

This Draft EIR presents an analysis of the potential impacts associated with the proposed implementation of East Bay Regional Park District's (EBRPD) Land Use Development Plan (LUDP) for Quarry Lakes Regional Recreation Area. The LUDP describes resources and proposed uses and facilities for this recreation area. This Draft EIR summarizes relevant portions of the LUDP. However, the reader is referred to the LUDP for full plan information.

The proposed project's site corresponds to the ACWD's Quarry Pits Rehabilitation Project site. This project encompasses ACWD's plan to improve and maintain the quality and reliability of its groundwater recharge operations at the Quarry Pits area by grading the existing steep banks and providing piping to circulate the water throughout the pits or lakes. An Environmental Impact Report (EIR) has recently been prepared and certified for this project. Although EBRPD is cooperating and coordinating with ACWD to accommodate the joint use of the area for recreational purposes, groundwater recharge, and wildlife preservation, the two projects are independent of one another. It is projected that the ACWD's project would be concluded by the time the EBRPD's project commences. The Quarry Lakes Regional Recreation Area is scheduled to develop its first phase in 1998.

This Draft EIR has been prepared in compliance with the State of California Environmental Quality Act (CEQA) *Guidelines*.

1.2 SCOPE OF THE EIR

An Initial Study has been completed (see Appendix A) and a Notice of Preparation was circulated by EBRPD to Responsible and Trustee Agencies.

Based on the Initial Study, the following issues were determined to be of concern: geology, soils, and seismic hazards; hydrology and water quality; traffic and circulation; air quality; noise; and public services and utilities. Although, impacts relating to land use and plan consistency and biological resources were found to be less than significant in the Initial Study, these impacts are

discussed in this EIR because mitigations can be implemented that would further reduce these impacts. Table 1 (which follows this Section) presents a summary of impacts and mitigations that are described in further detail in Section 3.0.

The analysis presented in this DEIR draws on the LUDP, ACWD's recent EIR and a number of other sources. These sources are listed under "references" in sections addressing each of the above mentioned issues.

1.3 EIR ORGANIZATION

This EIR is organized into five sections and two appendices. Following this Introduction (Section 1.0), Section 2.0, Project Description, presents the goals and design details of the proposed project.

Section 3.0, Environmental Setting, Impacts and Mitigation, describes existing conditions of the project area and presents the potential impacts of the project and mitigations that address these impacts.

Section 4.0, Impact Overview, discusses CEQA-required findings and the analysis of alternatives. Section 5.0 identifies report authors and persons contacted. Appendix A provides a copy of the Initial Study prepared for this project.

1.4 AGENCY JURISDICTION

EBRPD is the lead agency for the project and has filed a Notice of Preparation with the State of California in accordance with CEQA requirements. In addition to the District, the following agencies have an interest in or approval authority over actions proposed in by this project. The City of Fremont, The City of Union City, ACWD, BARTD, and Alameda County Public Works Agency will all be required to approve the proposed work. California State Division of Safety of Dams will review any changes within their jurisdiction. This EIR is intended to meet the CEQA/NEPA requirements of these agencies:

- California State Department of Transportation (Caltrans)
- County of Alameda (Public Works Agency)
- Regional Water Quality Control Board (RWQB)
- California Department of Fish and Game (CDFG)
- U.S. Fish and Wildlife Service (USFWS)

1.5 PUBLIC PARTICIPATION

The public is invited to review and comment on the EIR. The 45-day review period begins December 15, 1995, and comments may be submitted in written form before February 3, 1995. Submit written comments to: Maxine Turner, EBRPD, P.O. Box 5381, Oakland, CA 94605-0381. A public hearing to receive oral comments is scheduled for January 16, 1995 from 7:30 - 9:30 P. M. at Niles Elementary School, 37141 2nd Street, Fremont, CA.

TABLE 1: SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<u>3.1 Land Use, Plans, and Policies</u>		
<u>Impact:</u> In the event that housing is located along what has been developed as the access corridor to the park (on Quarry Lakes Drive in Union City) EBRPD may need to work with the City of Union City to develop posted on-street housing restrictions. However, the development of the Park is not in conflict with the General Plan land use designations for this area.	None required.	Less than significant.
<u>3.2 Geology, Soils, and Seismic Hazards</u>		
<u>Impact:</u> The proposed project could potentially expose people or property to the hazards of surface fault rupture in the event of a major earthquake. This is considered to be a potentially significant impact.	<u>Mitigation:</u> Dual-flexible connections would be provided for the restrooms' sewer lines and connections of the sewer lines to manholes. EBRPD will monitor the sewer system on site yearly.	Less than significant.
	<u>Mitigation:</u> Shut-off valves triggered by a certain threshold acceleration should be used in mainline pipe construction to minimize water loss.	
<u>Impact:</u> By turning the project site into a Regional Recreation Area, the public would be introduced to the site. As a result, a large number of people would be potentially exposed to the seismic effects of earthquake induced ground shaking vibrations. This is considered to be a potentially significant impact, unless mitigated.	<u>Mitigation:</u> Construction of all park facilities would conform with state seismic code requirements.	Less than significant.
	<u>Mitigation:</u> The District would prepare an Earthquake Prevention, Preparedness, and Emergency Response Plan for the Quarry Lakes Regional Recreation Area. This plan would consider the effects of both structural and non-structural damage, loss of power and utilities and backup sources of power generation, temporary lack of access to and from the site, emergency shelter, and food and water provisions.	

TABLE 1: SUMMARY OF IMPACTS AND MITIGATION MEASURES (Continued)

ENVIRONMENTAL IMPACT	MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<u>Impact:</u> The proposed project may expose people to potential hazards in the event that seismic ground failure occurred. This is considered to be a less than significant impact.	None required.	Less than significant.
<u>Impact:</u> The proposed project may expose people to potential hazards in the event of a landslide. This is considered to be a less than significant impact.	None required.	Less than significant.
3.3 Hydrology and Water Quality		
<u>Impact:</u> The proposed project would decrease absorption rates, alter drainage patterns, increase the amount of surface runoff and add pollutants to surface runoff as a result of pavement for two parking lots. This impact is considered to be potentially significant.	<u>Mitigation:</u> EBRPD would be responsible for developing a Stormwater Pollution Prevention Plan (SWPPP) for the project that fulfills two major objectives: (1) identify the sources of sediment and other pollutants that could affect the quality of storm water discharges; and (2) describe and ensure the implementation of practices and permanent project design features to reduce sediment and other pollutants in storm water discharges. <u>Mitigation:</u> In design of parking lots, EBRPD will include adequate stormwater control systems to ensure that stormwater is prevented from reaching area surface water. EBRPD will consider the use of filter mediums in catch basins of storm drains. <u>Mitigation:</u> Remove pollutants from paved areas and maintain runoff quality controls that exist within the drainage system. Examples include parking lot sweeping, catch basin cleaning, road maintenance and maintenance of structural controls in the system for runoff quality management.	Less than significant.

TABLE 1: SUMMARY OF IMPACTS AND MITIGATION MEASURES (Continued)

ENVIRONMENTAL IMPACT	MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<u>Impact:</u> Maintenance activities and public use of the area could compromise water quality.	<u>Mitigation:</u> Manage fertilizer and pesticide use to minimize surface runoff into the lakes as well as infiltration through soil into the groundwater basin. This management would include limited use of these materials within 50 feet of lake shores. <u>Mitigation:</u> Storage of hazardous materials would not be allowed except in securely locked facilities and trash and refuse from the general public will be removed from the site as soon as practical. <u>Mitigation:</u> Lake shores will be monitored for soil erosion due to the activities of the general public and repaired as soon as possible after it is detected to minimize incremental silt build up in the lakes. <u>Mitigation:</u> Potential contamination of surface water from fecal matter from domestic pets and horses will be controlled by limiting concentrations of pets and horses, enforcing leash laws and pet litter clean-up and restricting access to limited areas.	Less than significant.
<u>3.4 Biological Resources</u>		
<u>Impact:</u> EBRPD policies (EBRPD Master Plan 1988, 1992) have been established to provide guidelines for the protection, enhancement, utilization and management of the lands, waters, vegetation, and wildlife within EBRPD lands. These policies will be implemented in the development of the Regional Recreation Area. This will be a beneficial impact.	None required.	

TABLE 1: SUMMARY OF IMPACTS AND MITIGATION MEASURES (Continued)

ENVIRONMENTAL IMPACT	MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Impact: EBRPD proposes to establish a “Natural Unit” with public trail access, install interpretive signs and designate trail closures to protect plant and wildlife communities where appropriate, e.g. during the nesting season. All dogs will be on leashes. The District will work cooperatively with ACWD on habitat enhancement bringing about beneficial impacts to the project area.	None required.	Less than significant.
3.5 Traffic and Transportation		
Impact: The project would generate additional vehicle trips and thus be expected to contribute to the need for a traffic signal at the Alvarado-Niles Road / Osprey Drive intersection under buildout conditions.	Mitigation: The District would participate in negotiations to establish a fair share contribution to the installation of a traffic signal at the Alvarado-Niles Road / Osprey Drive intersection, at the time of signal installation by the responsible jurisdiction.	Less than significant.

TABLE 1: SUMMARY OF IMPACTS AND MITIGATION MEASURES (Continued)

ENVIRONMENTAL IMPACT	MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Impact: Without roadway widening, the queues of vehicles wishing to turn left and right into the park entrance would block the existing single travel lane in each direction, impeding through traffic flow; that impedance would be considered a significant impact.	Mitigation: The District would widen Quarry Lakes Drive - Isherwood Way in the vicinity of the park entrance to provide separate ten-foot-wide left-turn and right-turn lanes (of about 260 feet in length) and two 12-foot-wide through lanes, or would provide adequate queuing capacity on-site through use of two or more kiosks, or a combination of increased on-site queuing capacity and Quarry Lakes Drive widening, so as to accommodate queue lengths generated by entering vehicles without impeding through traffic on Quarry Lakes Drive - Isherwood Way.	Less than significant.
Impact: As a result of increased activity in the project area (i.e., added vehicular, bicycle and pedestrian traffic), the project may result in an increase in potential conflicts between both park-related and non-park traffic. The physical geometrics and intersection controls (i.e., signalization) currently in place, and proposed to be added as part of Union City's DIPSA Specific Plan development, however, would safely accommodate the mix of traffic under project conditions.	None required.	Less than significant.
Impact: Park design incorporates emergency connections on Isherwood Way, Quarry Lakes Drive and Alameda Regional Trail, which would provide sufficient emergency access. The District would also provide emergency helicopter service. Thus, the project would not create significant impacts due to inadequate emergency access.	None required.	Less than significant.

TABLE 1: SUMMARY OF IMPACTS AND MITIGATION MEASURES (Continued)

ENVIRONMENTAL IMPACT	MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Impact: If development of recreational uses precedes development of parking areas to accommodate the parking demand generated by resulting vehicle trips, then the unmet parking demand would spillover into nearby off-site areas, creating adverse impacts on adjacent land uses. The timing, and balancing, of implementation of recreational opportunities, provision for parking, and provision for improved transit service to the park would need to be monitored, and operations phased or modified to avoid adverse impacts. Without such phasing, project impacts, with respect to parking, would be potentially significant.	Mitigation: The District would conduct monitoring surveys of park-generated parking demand, and parking occupancy conditions in both on-site and off-site parking areas (within a 1/4-mile radius of the site), within one year of each phased parking lot construction. If the monitored parking demand generated by park uses exceeds the on-site supply and if spillover of unmet parking demand adversely affects parking conditions in adjacent areas, then the District would take corrective actions in the form of increasing the number of on-site parking spaces or encouraging, through information of incentives, use of transit service to the park. If on-site parking spaces are underutilized, at time when off-site parking impacts occur, the District would implement incentive strategies, or take cooperative actions with the Cities of Fremont and Union City to encourage greater use of on-site parking spaces.	Less than significant.
3.6 Air Quality	Mitigation: A policy of the City of Fremont <i>General Plan</i> is to reduce particulate emissions. As a condition of project approval, the following dust abatement program should be implemented by the contractor to mitigate dust impacts: • Active construction areas should be watered at least twice per day. Watering should be increased if wind speeds exceed 15 miles per hour. Effective watering generally reduces dust by as much as 50 percent over uncontrolled conditions. • Truck speeds should be limited on the project site to 25 miles per hour. • Replace ground cover in disturbed areas as quickly as is practical. • Enclose, cover, water twice daily, or apply soil binders to exposed stock piles (e.g. sand, gravel, or dirt).	Less than significant.

TABLE 1: SUMMARY OF IMPACTS AND MITIGATION MEASURES (Continued)

ENVIRONMENTAL IMPACT	MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<u>Impact:</u> Criteria air pollutants generated by the operation of the recreational area would increase total air pollutant emissions in the region. This would be a less than significant impact.	• Sweep up dirt or debris spilled onto paved surfaces as soon as practicable to reduce suspension of particulate matter through vehicle movement over these surfaces. • Designate a person or persons to oversee the implementation of a comprehensive dust control program and to increase watering, as necessary. • Cover all trucks hauling dirt, sand, soil, or other loose materials. Together, the above PM₁₀ mitigation measures would reduce construction-related PM₁₀ by approximately 75 percent, decreasing construction particulates to an approximate 179 lb/day. Although the resultant emissions after mitigation remain above the 80 lb/day significance criterion, additional factors related to the project location and construction duration would indicate a less than significant impact. The duration of construction activities would likely be within the range of six months to one year, and therefore would not include a significant period of time. Because the nearest sensitive receptors in the vicinity of the construction activities are residents located along Isherwood Way (west of the construction area) and prevailing winds travel from the north and west, the degree of impact would not be substantial. Therefore, construction activities would result in a less than significant impact. None required.	Less than significant.

TABLE 1: SUMMARY OF IMPACTS AND MITIGATION MEASURES (Continued)

ENVIRONMENTAL IMPACT	MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Impact: Mobile source emissions due to the operation of the project would increase carbon monoxide concentrations at intersections in the project vicinity. This would be a less than significant impact.	None required.	Less than significant.
3.7 Noise		
Impact: Construction of the project would increase noise levels temporarily in the project vicinity. This would be a less than significant impact.	Mitigation: While the project is not expected to have noise impacts to existing residential receptors, use of heavy equipment could be restricted to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 9:00 a.m. to 6:00 p.m., Saturday and Sunday.	Less than significant.
Impact: Offsite roadway volumes would increase which would increase the noise level to nearby residences. This would be a less than significant impact.	None required.	Less than significant.
Impact: Noise from recreational activities would affect nearby sensitive receptors. This would be a less than significant impact.	None required.	Less than significant.
3.8 Public Services and Utilities		
Impact: As a result of the introduction of the public into the site, the project would increase the demand for security and police protection services. This would be considered a potentially significant impact, unless mitigated.	Mitigation: The proposed Quarry Lakes Regional Recreation Area would be designed as a Class 1 facility, that is, at build-out, it would require the presence of one full-time officer at all times of operation on weekends.	Less than significant.

TABLE 1: SUMMARY OF IMPACTS AND MITIGATION MEASURES (Continued)

ENVIRONMENTAL IMPACT	MITIGATION	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	• Park operation will adhere to all regulations established in Ordinance 38, specifically regarding: clearly designating parking areas; maintaining a primarily alcohol-free park; and closing the park when the parking lot has reached capacity. • The District would develop a Park Emergency Services Plan, to include procedures for response in common disasters. Coordinate Park Emergency Services Plan with local emergency services plans.	

2.0 PROJECT DESCRIPTION

East Bay Regional Park District (EBRPD) is proposing development of the Quarry Lakes Regional Recreation Area. Comprised of approximately 450 acres, the site is located in the northern Niles District of the City of Fremont in Alameda County. Three-quarters of this acreage is occupied by water bodies, the remaining quarter by land. The project site is bordered by the Alameda Creek Flood Control Channel on both the south and southwest. On the western side, the site is bordered by Isherwood Way. Decoto Road borders the site on its northern side along with Alvarado Niles Road\Niles Boulevard, which creates a small northern boundary. The Bay Area Rapid Transit District (BARTD) and Union Pacific Railroad tracks border the project area in the east (see Figure 1).

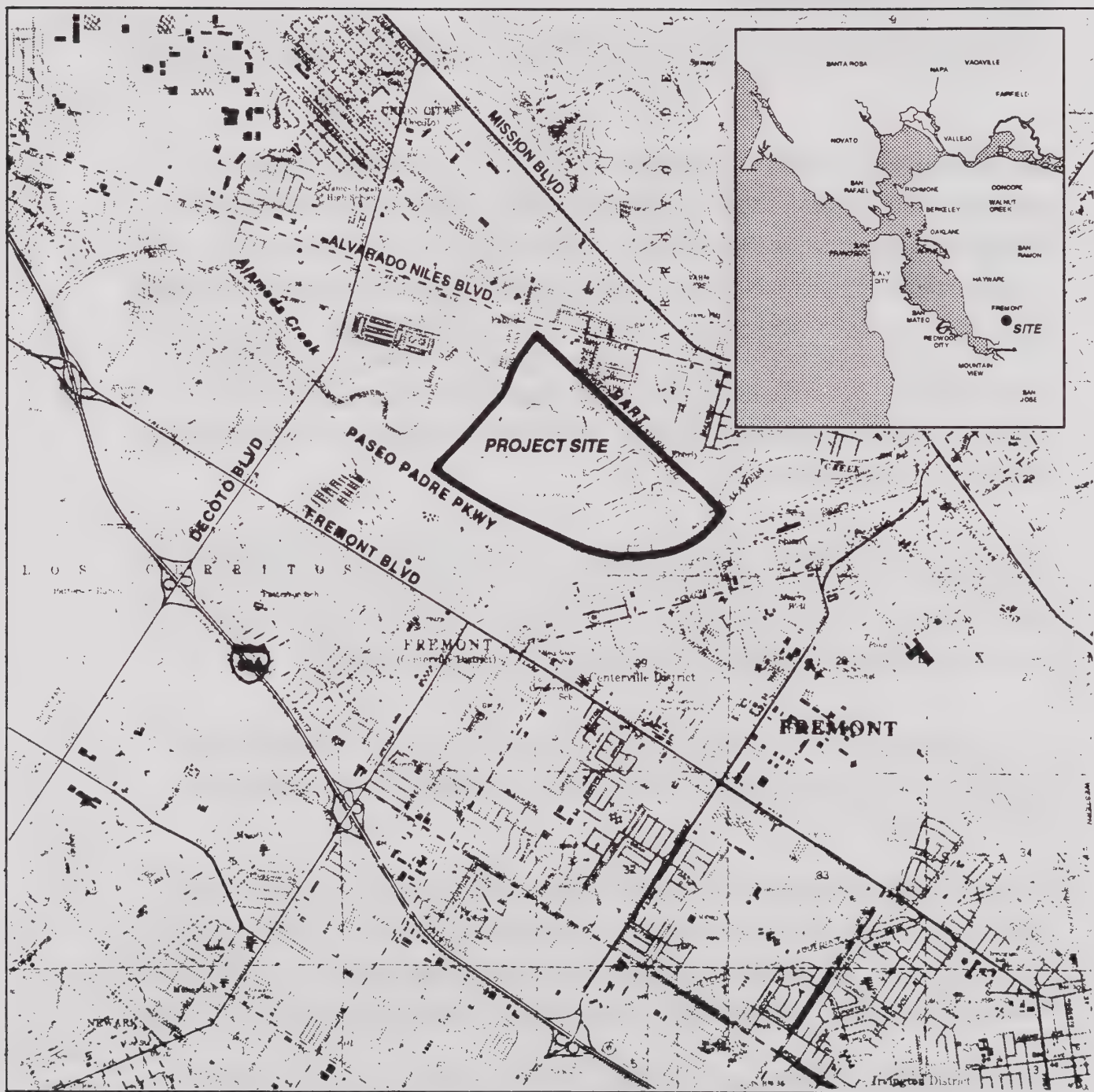
The site consists of a complex of deep quarry pits which have been maintained and operated by the Alameda County Water District (ACWD) for groundwater recharge since 1919. The project site is owned by several public agencies. Among them are the EBRPD, ACWD, BARTD, and the Alameda County Flood Control Water Conservation District (ACFCWCD).

The project involves the joint usage of the site to accommodate the use of the lakes by both ACWD, for groundwater recharge, and EBRPD to provide opportunities for recreation and wildlife preservation.

In 1976, EBRPD, ACWD, and the City of Fremont adopted a LUDP for Phase I of the Quarry Lakes Regional Recreation Area. This phase, encompassing a 115-acre area of land and water in the City of Fremont, included Niles Community Park with its Grau and Snell Ponds, Shinn Pond, Kaiser Ponds A and B, Ford and Bunting Ponds, and the Alameda Creek Flood Control Channel.

Primary public access to the site is in its northern portion, from Quarry Lakes Drive and Alvarado-Niles Road. Local traffic in Fremont can also access the site via Paseo Padre Parkway, an arterial street and Isherwood Way, a collector street. See Figure 2.

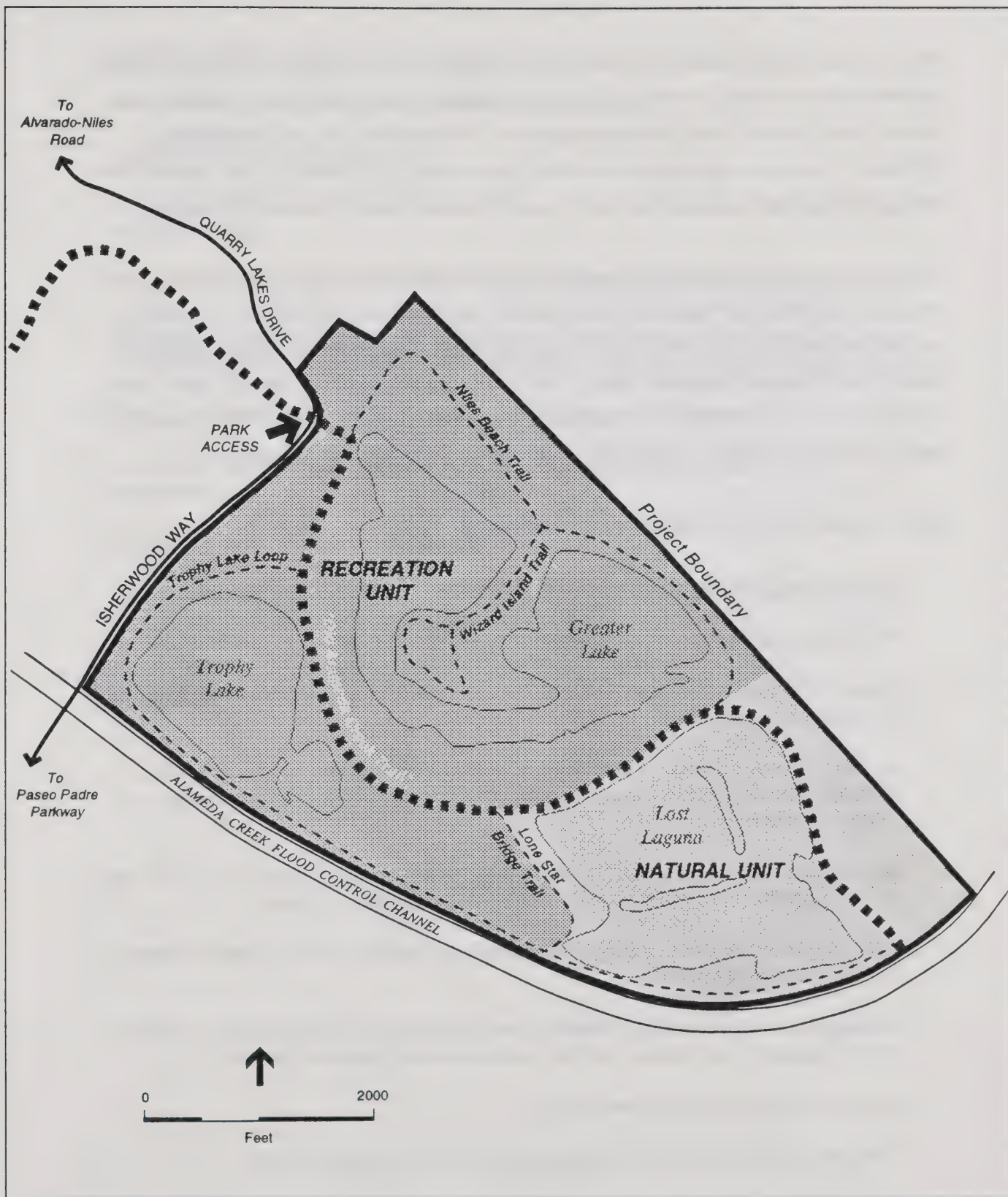
Parking will be located in the northwest portion of the project site. As lands and funding become available, parking capacity within the park is projected to accommodate a maximum of 1,500 vehicles.



SOURCE: Environmental Science Associates

Quarry Lakes Regional Recreation Area / 950399 ■

Figure 1
Site Location



SOURCE: Environmental Science Associates

Quarry Lakes Regional Recreation Area / 950399 ■

Figure 2
Quarry Lakes Regional Recreation Area -
Facilities and Park Unit Designations

Public uses in the park would be typically water and picnic oriented, with provision for a variety of water-related activities to include, but not to be limited to, seasonal swimming, windsurfing, non-fuel based boating, small boat access and rental, and shoreline, pier, and boat fishing. Additional recreational opportunities would include daycamp and reservation uses, in addition to trail uses such as walking, jogging, bicycling, and horseback riding (unpaved trails only).

The project proposes to subdivide the parkland into two distinctive units: (1) Recreation Unit and (2) Natural Unit (see Figure 2). The Recreation Unit, approximately 300 acres, of which over half are water surfaces and levee sides, would comprise the northwestern two-thirds of the Quarry Lakes Regional Recreation Area. The Lakes in this unit would be named Trophy Lake and Greater Lake. The Natural Unit, an area of over 100 acres, would comprise the remaining southeastern third of the site. The Lake in this area is to be named Lost Laguna.

The Recreation Unit is to include, but not be limited to:

- the main park entrance via Quarry Lakes Drive (from Alvarado Niles Road);
- on-site parking areas (accommodation of 1500 vehicles is projected at park build-out);
- alternative emergency and service access (i.e., via Fox Avenue, Alameda Creek Regional Trail and Isherwood Way);
- recreational opportunities for picnicking, seasonal swimming, non-fuel based boating, overnight camping, windsurfing, pier, boat, and shoreline fishing, hiking, bicycling, and horseback riding;
- park structures and facilities such as picnic tables, shade shelters, and barbecue grills, bait shop, equipment rental and storage, service yard, and security residence;
- park concessions related to fishing, boating and boat launching, windsurfing, swimming, bicycling, and food services;
- buildings up to 30 feet in height; building uses to be combined as appropriate. Buildings will be designed in accordance with the Americans with Disabilities Act (ADA);
- restrooms hooked to existing sewer lines;
- 1000 feet of beach frontage for swimming, and related lifeguard facilities;
- fish planting and monitoring programs in partnership with the California Department of Fish and Game, as appropriate;
- revegetation programs for the lakeshore zone in partnership with ACWD;

- emergency access by land and water to all lake areas;
- demonstration planting areas and interpretative opportunities;
- specialized fishery at Trophy Lake;
- group oriented (reservation area for) activities such as group picnics and day camps south of Trophy Lake;
- multipurpose trail (Old Alameda Creek Trail) and existing central maintenance road; and
- multipurpose loop trails around the lakes (Trophy Lake Loop and Niles Beach Trail) and a multipurpose trail to the landform that extends into Greater Lake (Wizard Island Trail).

The Natural Unit, an area of over 100 acres, is to include, but not be limited to:

- joint project with ACWD to protect, enhance, and maintain wildlife habitat and populations;
- interpretive signs to preserve wildlife habitats;
- multipurpose trail loops connecting to the Recreation Unit and the Regional Trail (Lone Star Bridge Trail) connecting to Old Alameda Creek Trail; and
- fish planting and monitoring programs to maintain the variety of native stocks, as appropriate.

3.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

3.1 LAND USE, PLANS, AND POLICIES

SETTING

Adjacent Land Uses and Zoning Designations

City of Fremont

The project site is located within the Centerville Planning Area as specified by the *1991 Fremont General Plan*. Land use designations in the immediate vicinity of the site are predominantly residential, although there are also some commercial and Planned District designations in the surrounding area.

Encompassing an area south and southwest of the project site and of Paseo Padre Parkway, the Centerville District's commercial identity has been characterized by the auto sales industry. In response to the pending departure of the industry from the area, the City of Fremont adopted the Centerville Specific Plan in September of 1993 to guide the revitalization and redevelopment plans for the area. This plan contains several land use designation and zoning ordinance changes. Mainly, these changes represent shifts from commercial to residential land use designations that have been implemented in an effort to "provide new housing opportunities for existing and future residents of Centerville in locations undergoing land use transitions." These changes from commercial to residential land use range from single-family dwellings to multiple-family housing, and from low to medium densities. Additionally, although high density housing has not been introduced in the Centerville Specific Plan, some previously existing high density residential land uses of 23-27 dwelling units per acre have remained in the Centerville Planning Area.

Proposed rezonings related to the Centerville Specific Plan represent the following changes in zoning ordinances: from A (Agriculture) to R-1-6 (Residential 5.0-7.0 units per acre); from A to C-T (Throughfare Commercial); from C-C (Community Commercial) to C-T; from C-G (General Commercial) to C-N (Neighborhood Commercial Center); from C-G to C-O (Office Commercial); from C-G to C-C; from C-G to PF (Public Facility, New zoning district to be

created); from P (Planned District) to R-1-6; from R-G-40 (Residential 11.0-15.0 units per acre) to R-1-6; from R-G-19 (Residential 23.0-7.0 units per acre) to R-G-40; from R-G-19 to R-G-29 (Residential 15.0-18.0 units per acre); from R-G-19 to C-C; from C-T to C-O; from R-1-6 to O-S (Open Space); from C-R (Commercial Restricted) to C-T; and from C-R to CBD (Central Business District).

The area east of the BART tracks is zoned as Open Space. The developments to the northeast of the project site are zoned residential, single family homes with six homes per acre. The residential areas adjacent to the site in the northwest, along Isherwood Way, and in the southwest and south, along Paseo Padre Parkway, are areas designated P, Planned District, which may be used for any land use designation, provided these uses are consistent with General Plan designations.

Plans and Policies

The following are Fundamental Goals and policies of the City's General Plan as they are relevant to the relationship between land use and the proposed project:

F 2 - A harmonious blend of the natural and built environments.

The interaction between the project and the surrounding residential areas would be harmonious, because the actions called by the proposal would establish a unity between the natural and the built environments.

F 8 - A diversity of residential, recreational, cultural, employment and shopping opportunities.

F 12 - Parks, recreational facilities and opportunities.

By proposing a Regional Park where people would be able to enjoy a wide array of recreational opportunities, the project would provide the appropriate facilities and establish recreational diversity, thereby fulfilling Fundamental Goals F 8 and F 12.

Land Use (LU) Goal 4: Conservation of the City's open space resources.

Policy LU 4.1 of the Fremont General Plan applies to the proposed project since its site is designated as Institutional Open Space. This designation applies to publicly held land permanently committed to open space uses (including parks, agriculture, recreation, preservation of biological resource values and natural open space). By creating a Regional Park, the project proposal would play a beneficial role in the conservation of the City of Fremont's open space resources.

Centerville Specific Plan

The Centerville Specific Plan seeks to implement Fundamental Goals F 8 and F 12 of the 1991 Fremont General Plan, both of which were stated previously. As already mentioned, the proposed project would be consistent with these two goals and, therefore, it would be compatible with the stated objectives of the Centerville Specific Plan.

City of Union City

Decoto Industrial Park Study Area (DIPSA)

In August of 1994, the City of Union City adopted the DIPSA, whose amendment was approved by the city's City Council through resolution number 8608-95 in June of 1995. Land use designation and zoning ordinance information contained in this plan are relevant to the proposed project given that the southernmost district of the DIPSA (zoned Open Space) is adjacent to the Quarry Lakes Park site.

The following is a change in land use designation as specified in the DIPSA from OS (Open Space) to R3-6 (Residential, 3 to 6 dwelling units per acre).

This change in land use designation indicates that housing could eventually be established adjacent to the park's main access route.

Plans and Policies - General Plan

The following are goals and policies of the City of Union City's General Plan as they support the proposed project:

Policy C.13. The city should continue to coordinate joint (shared) public use with affected agencies and jurisdictions on lands and in facilities to maximize public opportunity for recreational and social services programs, and to maximize cost effectiveness of such programs to the agencies involved in such programs.

Policy C.24. Create a residential community with high-quality amenities by:

Policy C.24.d. Providing neighborhood parks of sufficient size to adequately meet the recreational needs of residents.

Policy C.27. Promote development that fosters livability and a sense of place by:

Policy C.27.b. Linking individual neighborhoods with open space corridors and bicycle and pedestrian paths; and

Policy C.27.c. Locating recreational facilities within convenient walking or bicycling distance from all residential areas.

Plans and Policies - DIPSA Specific Plan

The following are goals and policies of the DIPSA Specific Plan, as they are relevant to the relationship between land use and the proposed project:

Goal 1. Encourage and support the timely redevelopment of the DIPSA as an area of high quality residential, commercial, office, R&D, light industrial and service commercial industries and uses, with appropriate associated uses, such as transportation links, parks, schools, etc.

Objective 1.a. Promote opportunities for consolidation of lands so that preferred land uses can be developed in the short, rather than long term.

Objective 1.d. Provide open space and recreational facilities as necessary to balance the planned built environment and meet the needs of the planned population.

General Policy 1. The DIPSA shall be a place of mixed uses including residential of varying densities and designs, both local and regional serving commercial, business offices, special industrial, and major transportation facilities. These uses shall be supported by necessary services and facilities, including recreation, schools and open space areas.

General Policy 9. Public facilities such as schools and parks should be conveniently located to assure convenient access for residents of the DIPSA.

IMPACTS AND MITIGATION MEASURES

Significance Criteria

According to Appendix G of the CEQA *Guidelines*, a project would have a significant impact on the environment if it would: (1) disrupt or divide the physical arrangement of an established community; (2) conflict with adopted environmental plans and goals of the community where it is located; (3) conflict with established recreational, educational, religious, or scientific uses of the area; and (4) convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land.

Appendix I of the CEQA *Guidelines* states that a project would have a significant impact on the environment if it would result in a substantial alteration of the present or planned land use of an area.

Land use impacts of the proposed project would be considered significant if project implementation would introduce incompatible land uses into the surrounding areas or result in land uses inconsistent with General Plan land use designations and zoning ordinances for the proposed site.

Impact: In the event that housing is located along what has been developed as the access corridor to the park (on Quarry Lakes Drive in Union City) EBRPD may need to work with the City of Union City to develop posted on-street housing restrictions. However, the development of the Park is not in conflict with the General Plan land use designations for this area.

Mitigation: None required.

3.2 GEOLOGY, SOILS, AND SEISMIC HAZARDS

SETTING

Topography

The project site is located in an area between the western front of the Mission Hills and the edge of San Francisco Bay known as the alluvial plain (Helley, *et al.*, 1979), or sometimes also called the San Jose Plain. The alluvial plain forms the upper fringe of the San Francisco Bay Plain on lands formed as extensive alluvial fans, that is, gently sloping topographic features formed by deep layers of unconsolidated sediments deposited at the foot of the adjacent hills. The site occupies about 450 acres. The natural elevation of the site ranges between approximately 40 and 70 feet above mean sea level (MSL), with a gentle slope inclined generally to the southwest. However, the natural topography has been considerably altered by mining, floodway channel and levee construction, and surrounding urban development. As a result, little of the original natural surface and topography remains. Earlier in the century, gravel quarrying operations in the alluvium created deep pits, up to 120 feet below the general ground surface. The pit walls were excavated as steeply as possible into the alluvium, in some areas forming almost vertical cliffs. Some of the original pits were subsequently filled in with silt and clay, which were waste products (strippings) of the gravel mines, however, some of these pits were filled with water, thus forming lakes.

As a result of the implementation of the Quarry Pits Rehabilitation Project sponsored by the Alameda County Water District (ACWD), the collective topographic features of the site will be significantly changed. ACWD's project will, for the most part, be concluded prior to commencement of park development, and will grade the existing steep sloping banks of most lakes areas. EBRPD will be responsible for final fine grading required for park facilities. EBRPD will be responsible for final fine grading required for park facilities. Under the ACWD's proposed plan, most slopes would be graded to a maximum slope of 2.4:1 (horizontal to vertical ratio), although some slopes would be shallower than that. Three lakes -- Greater Lake, Trophy Lake and Lost Laguna Lake -- will be formed by the ACWD grading project. Specific elements of the topography will be as follows:

Greater Lake - The steep bluffs along the east side of Greater Lake will be trimmed to a maximum slope of 2.4:1. A wide area will be excavated along the north shore of the lake, some of which is the Old Alameda Creek fill. The slope will vary with location (much of the slope being 5:1 or 10:1), but at the centerline, the slope will flatten to as much as 14:1 to form a beach area, and 15:1 to as flat as 25:1 to form a meadow area on the western side

of Greater Lake. Landscape mounds (generally with 3:1 slopes), with crest elevations as high as elevation +79 feet will be constructed to the north of this excavated area. This area will adequately accommodate high recreational use, including a beach, boat access ramp, and marina. The steeper bluffs (about 40 to 50 feet high above lake level) around the northwestern and southern edges of Greater Lake will be excavated back at a maximum slope of 2.4:1.

Trophy Lake - Most of Trophy Lake is currently surrounded by steep (up to 1.6:1), unstable or metastable slopes reaching up to about 50 to 60 feet in height above lake water level. The steep slopes around the north and southwestern sides of Trophy Lake will be trimmed to a maximum slope of 2.4:1, and reduced to approximately 4:1 in most places (northeast side) to allow for potential recreational access. The levee between Trophy Lake and Greater Lake will be strengthened. Existing slopes on the northwest side of Trophy Lake are steep, but cannot be substantially cut back because of the close proximity of Isherwood Way. Slopes of 1.6:1 to 3:1 will be cut in that area. These will be the steepest slopes remaining after completion of the ACWD's project. The slopes will be about 15 to 25 feet high above the current lake levels. As a result, in that area, erosion protection, such as cellular confinement material filled with gravel, will be provided in this area. Vegetation will be able to grow through this system which will reduce most surface erosion. The possibility of a large slope failure may remain in this area of Trophy Lake, but the proposed erosion protection will help to eliminate one potential source of potential failure.

The western side of Trophy Lake was graded upon completion of quarrying, but wave action in the lake has locally undercut the high (about 60 feet above pit level) slope and shallow land sliding has occurred (HTA, 1991). Trimming of the western slope will further reduce that slope, thereby reducing both the hazard of slope failure and the potential for further undercutting by wave action. The southern side of Trophy Lake has steep high (about 50 to 60 feet above lake levels) slopes that will be cut back to a 2.4:1 slope and reduced in height to about elevation 40.

There is currently a shallow pit east of Trophy Lake. This pit will be lowered approximately 9 feet to elevation +0 MSL and connected with Trophy Lake. The existing levee between this pit and Trophy Lake is quite high and extremely steep on both sides. This levee will be lowered and stabilized, and will be also be excavated (breached) to elevation -5 MSL to allow water flow between the lake and pit. This will provide a more stable connection between these two bodies of water and will provide increased habitat for fish stocking planned for Trophy Lake.

ACWD's Rehabilitation Project will create one large lake, Lost Laguna Lake, in the area that will be designated as the Natural Unit. This lake will include two islands to be developed as wildlife habitat.

The final slope configuration in this area is designed to be relatively flat. A road will be constructed across this area. A narrow island for wildlife habitat will be formed by the excavation of each end of an existing spit. Fill will be placed on top of the spit. Another island will be formed at the base of the slope to the south of Lost Laguna Lake. It will be formed by an excavated channel with fill placed on the island and on either side of the channel.

Geologic Materials

The geologic materials at the site consist of alluvium (water-laid deposits of sand, silt, clay and gravel) and artificial fills. The alluvium was deposited by streams draining the adjacent hills and slopes of the Diablo Range, including Alameda Creek, the master stream of the area, draining an area of 633 square miles. The creek has created a large alluvial fan, which is named the Niles Cone. The alluvium in this area is about 1,400 feet thick (California Department of Water Resources, 1967). The Niles Cone consists of mostly unconsolidated materials arranged in flat-lying strata (layers) that vary in thickness and composition. These materials were deposited in a major structural depression between two mountain ranges, the Santa Cruz Mountains to the west and the Hayward Hills to the east. The Mission Hills are the westernmost extension of the Diablo Range. San Francisco Bay occupies the center portion of the depression. The Bay has been the depositional location for materials derived from the local hills, such as the Niles Cone, as well as sediments eroded from the vast Central California region and transported by the Sacramento-San Joaquin River system. The Niles Cone extends westward at depth below the Bay (but is overlain there by Bay Mud and other deposits which are not present at the project site). In general, the thickness and grain size of the water-bearing geologic units of the Niles Cone decreases in a westerly direction, while the inter-layered non-water-bearing strata consisting of clay beds become thicker.

In general, the natural surficial materials consist of medium stiff to stiff sandy silt or silty sand extending to a depth of 10 to 40 feet. Intermixed lenses of fine gravels or clays are present in this layer. Beneath the fine-grained cap layer are silty and sandy, dense to very dense, well-graded gravels. These materials grade locally to sandier and siltier layers that include six-inch cobbles. This layer contained the gravel that was the mined resource. The thickness of the gravel layer varies widely onsite, but has been found to extend to elevations of -45 to -98. The gravels, in turn, are underlain by a layer of silty clay and sandy silt that is stiff to very stiff and often inter-layered with thin sandy gravel strata. This stratum varies in thickness from 15 to 55 feet (HTA, 1991). Lying yet deeper in the geologic profile, alternating layers of gravels and silts extend to a depth of at least 360 feet (elevation -300), as measured in the deepest water well boring of the site (HTA, 1991).

Extensive areas of the site consist of artificial fills, most of which were placed during the period of aggregate mining. The characteristics of the fills varies considerably. Much of the fill is fine-sized strippings (clay and silt) mixed with some gravel which were separated from the resource gravels during mining and deposited hydraulically in the previously excavated pits (HTA, 1991).

3.0 Environmental Setting, Impacts, and Mitigation

3.2 Geology, Soils, and Seismic Hazards

The fills were placed with varying degrees of compaction and, generally, are unsuitable for support of structures and levees (HTA, 1991). Some of the old fill material has a very high moisture content. Additionally, engineered fills are present around the perimeter of the site.

The bottoms of the lakes all contain sediments that were either deliberately deposited there during mining to dispose of fine sediments or that have been washed into them from the adjacent slopes by post-mining erosion and sloughing from the slopes. These sediments are predominantly fine-sized deposits of clay and silt. Bedrock is found at great depth, about 1,400 feet at the site, and is not encountered at the surface or in the bottoms of the lakes. The rock units have been buried deeply under multiple layers of sediments. Bedrock in the region generally consists of the Santa Clara Formation, a rock unit composed of pebbly sandstone, siltstone or clay that is generally present at depth on the east side of the Bay, or possibly the Franciscan Complex, a mixture of deep marine sedimentary rocks (sandstones, limestones, and radiolarian cherts), volcanic rocks, and metamorphic rocks of variable grade. Franciscan bedrock is exposed at the surface in the Mission Hills about one-half mile to the east of the site.

Soils

A soil survey for western Alameda County (Soil Conservation Service, 1981) indicates that one natural soil type characterizes the site, the Sycamore-Yolo soil unit. The soil consists of nearly level, well drained to poorly drained silt loams formed on alluvial fans. The soils are mildly to moderately alkaline. Soils formed on heterogeneous fills are classified as a non-specific soil unit known simply as Urban Land. The Urban Land soils may be deep (greater than five feet) and excessively drained, with rapid permeability, slow to medium runoff, and subject to severe wind blowing.

Seismic Hazards

The San Francisco Bay Area is a region of high seismic activity. The San Andreas fault system, forming the boundary between the North American and Pacific tectonic plates, trends northwestward in a 50-mile-wide band in the region. The San Andreas fault system has produced major earthquakes in the past and is expected to do so in the future.

At least 30 faults capable of generating earthquakes are located in the Bay Area (Perkins, 1987). Major active and potentially active faults near the project site include the Hayward, San Andreas, Calaveras, Rodgers Creek, Green Valley, Concord, West Napa, and Greenville faults (see

Figure 3) (Jennings, 1992). Table 2 shows the maximum credible earthquake (MCE) magnitudes predicted for the project site; the slip rate; and the distances of these faults from the site. The Hayward Fault particularly threatens the site because of its close proximity, maximum credible earthquake (Richter Magnitude 7.5)¹ and estimated maximum bedrock acceleration (0.4 g)² at the site. There is a 28 percent probability of a 7.0 or greater Richter magnitude earthquake occurring on the Hayward fault in the next 30 years (U.S. Geological Survey, 1990). Earthquakes on the San Andreas Fault also pose a high hazard at the site; there is a 67 percent chance of a Richter magnitude 7.0 or greater earthquake occurring on the San Andreas Fault during the next 30 years. The U.S. Geological Survey recently indicated that it believes there is a 90 percent chance that a major earthquake will occur in the Bay Area in the next 30 years (*San Francisco Chronicle*, 1994).

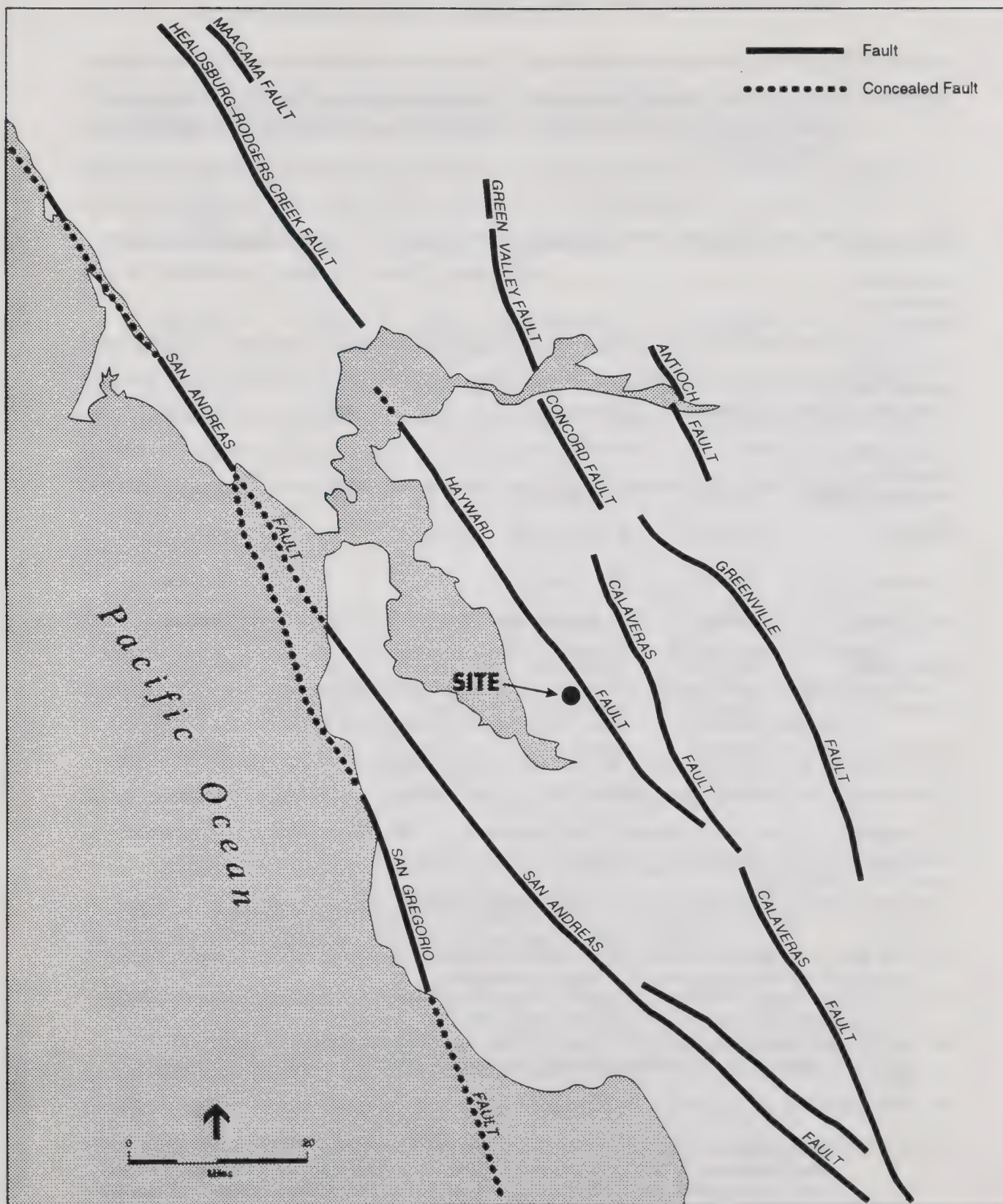
The Hayward Fault, which at its closest is located less than 0.5 mile northeast of the site (see Figure 4), is capable of generating an earthquake of Richter magnitude 7.5, and has produced strong earthquakes in 1836 and 1868 (Perkins, 1987). The Calaveras Fault, 7 miles to the northeast, could generate an earthquake of Richter magnitude 7.0. The San Andreas Fault, 14 miles southwest, is capable of generating an 8.25 magnitude quake (as during the 1906 San Francisco event), and as recently as 1989 generated a 7.1 magnitude quake at Loma Prieta in the Santa Cruz Mountains, about 55 miles south of the site. The Loma Prieta earthquake resulted in severe damage in the Bay Area. An accelerometer at the Fremont Fire Station, less than 0.5 mile from the site, recorded a maximum horizontal acceleration of 0.13g (HTA, 1991). Other faults in the region exhibiting activity within Holocene time (the past 10,000 years) are indicated in Table 2.

Four major hazards are associated with large earthquakes: ground shaking, fault surface rupture, ground failure, and inundation from earthquake-generated water waves or flood waters from dam failure.

Ground Shaking

Ground shaking is the cause of the most damage during earthquakes. A major earthquake on the Hayward Fault, with an epicenter near the project site, could produce high levels of ground shaking. Under a scenario of a major earthquake (a 7.5 Richter Magnitude earthquake),

¹ Richter Magnitude is a measure of the intrinsic size of an earthquake using the amount of energy release. A unit increase in magnitude represents a 30-fold increase in elastic wave energy radiated by an earthquake.



Quarry Lakes Regional Recreation Area / 950399 ■

SOURCE: Environmental Science Associates

Figure 3
Regional Fault Map

TABLE 2: MAJOR SAN FRANCISCO BAY AREA EARTHQUAKE FAULTS, AGE, SLIP RATE, MAXIMUM HISTORIC EARTHQUAKE, AND MAXIMUM CREDIBLE EARTHQUAKE

<u>Fault Name</u>	<u>Age /a/</u>	<u>Slip Rate /b/</u>	<u>MHE /c/</u>	<u>MCE/d/</u>	<u>Nearest Distance from Site</u>
San Andreas - North Coast segment	Historic	15 - 23 mm/year	8.25	8.25	15.5 miles
San Andreas - San Francisco Peninsula segment	Historic	19 mm/year	7.0	8.25	18 miles
San Andreas - Santa Cruz Mountains segment	Historic	19 mm/year	7.1	8.25	40 miles
Hayward	Historic	9 - 15 mm/year	6.5 - 7.5	7.5	0.5 miles
Calaveras	Historic	13 - 17 mm/year	6.0	7.0	18 miles
Rodgers Creek	Historic	6 - 10 mm/year	5.7	7.5	23 miles
Green Valley	Holocene	4 mm/year	2 - 3	7.0	20 miles
Concord	Historic	4 mm/year	5.4	6.75	17 miles
Antioch	Historic	NA /e/	6.0	6.5	28 miles
Greenville	Historic	NA /e/	5.9	7.0	32 miles
San Gregorio (Seal Cove)	Historic	NA /e/	6.4	7.5	26 miles

/a/ Age is the period of recorded or most recent geologic evidence of earthquake displacement on a fault.

/b/ Slip Rate is the amount of surface displacement along a fault over a unit period; the higher the slip rate, the shorter the expected time to the next earthquake.

/c/ MHE is the Maximum Historic Earthquake, Richter Magnitude, based on measurements or inferred from geologic and observed evidence of earthquake effects.

/d/ MCE is the Maximum Credible Earthquake, Richter Magnitude, an estimate of the largest earthquake that is judged by geologic studies to be capable of occurring on a fault or segment of a fault.

/e/ Not Available.

SOURCES: Working Group on California Earthquake Probabilities, 1990, *Probabilities of Large Earthquakes in the San Francisco Bay Region, California*. California Division of Mines and Geology, 1992, *Open File Report 92-1*; Anderson, J.G., 1984, *Synthesis of Seismicity and Geologic Data in California*, U.S. Geologic Survey Open File Report 84-424; Wesnousky, S.G., 1986, "Earthquakes, Quaternary Faults and Seismic Hazards in California", in *Journal of Geophysical Research*, Vol. 91, No. B12.

maximum credible rock acceleration of around 0.7 g in this area is expected (HTA, 1991), and ground shaking at the site is expected to reach an intensity of IX on the Modified Mercalli Scale³ (the scale ranges from I to XII) (Steinbrugge, *et al.*, 1987). In general, this is an intensity sufficient to considerably damage masonry structures built especially to withstand earthquakes, cause some collapse of unreinforced masonry buildings, break underground pipes, and create considerable interior damage within all buildings. Ground motion would also be sufficient to trigger landslides and induce collapse of steep slopes.

Amplification of ground shaking from earthquakes may occur in deep alluvium, such as occur at the site. The amplification possibly may be due to two contributing factors: (1) site-specific amplification of bedrock acceleration may occur upwards through cohesive soils to the surfaces of relatively softer surficial deposits, and (2) the deep cohesive soils themselves may cause pronounced amplification of long period (low frequency) components of bedrock shaking.

Fault Surface Rupture

In major earthquakes, fault displacement can cause rupture along the surface trace of the fault, leading to severe damage to any structures or other improvements located on the fault trace. Surface rupture generally occurs along a fault trace. No known active faults run through the site, and the site is not located in an Alquist-Priolo Special Studies Zone.⁴ Recent studies of earthquake epicenters and geophysical investigations indicate that many previously undiscovered faults capable of generating large earthquakes (e.g., the recent Northridge earthquake) lie concealed by deep alluvial cover. While a concealed fault is always a possibility, no evidence exists to suggest that a deep fault capable of generating earthquakes underlies the project site. However, given the close proximity of the Hayward Fault to the project site (0.5 miles), caution should be used when planning park facilities and general infrastructure.

Ground Failure

Earthquakes and aftershocks may cause secondary ground failures. Ground failures are caused by soil losing its structural integrity. Examples of seismically induced ground failures are liquefaction and ground lurching. Liquefaction is the rapid transformation of loose saturated

³ The Modified Mercalli Scale is one of several scales used to qualitatively rate earthquake effects on people, objects, structures and the ground surface. The Modified Mercalli Scale has been the accepted standard in North America since 1931.

⁴ The Alquist Priolo Geologic Hazards Zone Act (PRC Division 2, Chapter 7.5) directed the California Division of Mines and Geology to identify and delineate known and potentially active faults. These mapped fault zones ("Special Study Zones") locate areas where fault rupture is a potential hazard.

granular material (such as sand) from a solid to a liquid state during earthquake ground shaking. Temporary fluid-like behavior of loose saturated granular soils occurs in areas where groundwater is high. Lurching (also called lateral spreading) is the movement of ground material toward a free face, such as a cliff or stream bank, in response to earthquake-induced ground shaking. Besides lateral displacement of the soil, irregular ground surface cracks are formed in lurching land. The potential for lurching is highest in areas underlain by soft, saturated materials, especially where bordered by steep banks or adjacent hard ground. Helley *et al.* (1979) indicated that, in general, the low shear strength, high seasonal water table, and potentially liquefiable layers of alluvium and fill near the ground surface suggest strong ground-motion amplification during earthquakes and the possibility of ground failure in sites similar to the project site. HTA (1991) also indicates that some site soils, particularly old fills, may be subject to liquefaction.

IMPACTS AND MITIGATION MEASURES

Significance Criteria

Appendix G of the CEQA *Guidelines* provides examples of geologic impacts that are normally considered significant, including those that would:

- cause substantial flooding, erosion, or siltation; or
- expose people or structures to major geologic hazards.

Appendix I of the CEQA *Guidelines* gives more specific examples of potentially significant geologic impacts. A proposed project would have significant geologic impacts if it would result in:

- unstable earth conditions, or changes in geologic substructures;
- disruptions, displacements, compaction, or over-covering of soil;
- change in topography or ground surface relief features;
- the destruction, covering or modification of any unique geologic or physical features;
- any increase in wind or water erosion of soils, either on or off the site;
- changes in deposition or erosion of beach sands; or changes in siltation, deposition or erosion which may modify the channel of a river or stream, or the bed of the ocean or any bay, inlet, or lake; or

- exposure of people or property to geologic hazards, such as earthquakes, landslides, mud slides, ground failure, or similar hazards.

Because of project site conditions, some potential geologic impacts can be eliminated as non-existent or negligible at the project site. These include creation of unstable bedrock conditions (no bedrock would be exposed); effects on beach sands, river channels, the ocean, or bay; seiche, tsunami, and volcanic hazards; erosion; and effects on unique geologic features.

Impact: The proposed project could potentially expose people or property to the hazards of surface fault rupture in the event of a major earthquake. This is considered to be a potentially significant impact.

In the event of a major earthquake, damage to park structural and non-structural facilities could occur. Pipelines connected to existing sewer lines to serve the park's restrooms may be adversely impacted by surface rupture resulting in their failure. As a result, soil, surface water, and groundwater contamination could occur. In addition, people could be exposed to potential hazards of building collapse that would be associated with surface fault rupture. Although no known active faults underlie the site, the close proximity of the Hayward Fault (0.5 mile) is of concern. This impact is reduced to less than significant levels by the following mitigations.

Mitigation: Dual-flexible connections would be provided for the restrooms' sewer lines and connections of the sewer lines to manholes. EBRPD will monitor the sewer system on site yearly.

Mitigation: Shut-off valves triggered by a certain threshold acceleration should be used in mainline pipe construction to minimize water loss.

Impact: By turning the project site into a Regional Recreation Area, the public would be introduced to the site. As a result, a large number of people would be potentially exposed to the seismic effects of earthquake induced ground shaking vibrations. This is considered to be a potentially significant impact, unless mitigated.

The entire recreational area would be subject to potentially violent ground shaking effects, given the close proximity of the Hayward Fault, in addition to other major active faults (see Table 2 in this section). Both structural (building elements) and non-structural (interior elements and fixtures) damage could occur and harm recreationists, especially children, and park staff. Additionally, other phenomena such as loss of power and utilities, lack of food and water, and

lack of access to and from the site may also occur. Implementation of the above mitigation measures would reduce this impact to a less than significant level.

Mitigation: Construction of all park facilities would conform with state seismic code requirements.

Mitigation: The District would prepare an Earthquake Prevention, Preparedness, and Emergency Response Plan for the Quarry Lakes Regional Recreation Area. This plan would consider the effects of both structural and non-structural damage, loss of power and utilities and backup sources of power generation, temporary lack of access to and from the site, emergency shelter, and food and water provisions.

Impact: The proposed project may expose people to potential hazards in the event that seismic ground failure occurred. This is considered to be a less than significant impact.

All grading and steep slope trimming on the lakes would be performed as part of the ACWD's Quarry Pits Rehabilitation Project prior to commencement of EBRPD's proposed project. However, as some potential slope instability may remain along the northwest slope of Trophy Lake, it may expose people to potential hazards associated with seismic ground failure. Because it would be very unlikely that such an event would occur, the impact is considered to be less than significant.

Mitigation: None required.

Impact: The proposed project may expose people to potential hazards in the event of a landslide.

The Quarry Pits Rehabilitation Project, proposed by ACWD, is expected to have a beneficial impact on the topography of the site, since it would significantly reduce the hazards of slope failure. Therefore, earthquake induced slope failure (landslides) would be significantly reduced as a result of the implementation of ACWD's project. Since the EBRPD's project would not alter the topography of the site, (only fine grading is included in this project) no significant impact associated with landslides would occur.

Mitigation: None required.

3.3 HYDROLOGY AND WATER QUALITY

SETTING

Hydrography

The project site is located within the drainage of Alameda Creek. Alameda Creek has a total drainage area of 633 square miles that includes in its upper portion watersheds of the Diablo Range and, in its lower portion watershed of the San Francisco Bay. The upper watershed includes large areas of open space and the large urbanizing areas of the Amador-Livermore Valleys. The major tributaries of Alameda Creek have been dammed, creating large reservoirs including Lake Del Valle (State Water Project), San Antonio Reservoir, and Calaveras Reservoir (both are San Francisco Water Department), which substantially regulate the flow of the creek. Virtually all flow in summer and autumn in the creek results from State Water Project South Bay Aqueduct turnouts (California Department of Water Resources, 1982). The entire flow of the upper creek is carried through Niles Canyon just east of the project site.

Upon emerging from the western front of the Mission Hills, Alameda Creek enters the lower watershed and flows westerly across the Bay Plain, discharging into San Francisco Bay near the Coyote Hills about 6.5 miles west of the project site. The lower watershed is largely urbanized. The original channel of Alameda Creek flowed westerly through the project site, but the flow has been diverted around the project site. Portions of the original channel, currently referred to as Old Alameda Creek, lie to the north and west of the project site, but no longer provide the primary drainage way of Alameda Creek. In the 1960's, the U.S. Army Corps of Engineers constructed a new channel to carry flows of Alameda Creek. This channel is referred to as the Alameda Creek Flood Control Channel (ACFCC), which constitutes the primary channel of Alameda Creek west of Niles Canyon. The ACFCC is a constructed floodway that circumvents the southern and western perimeter of the site, but is not within the project area.

The U.S. Geological Survey maintains a flow gauging station on Alameda Creek near Niles. As is characteristic of central California water courses, there is considerable fluctuation in seasonal flows of the creek. In 1980, for example, flows ranged from 2.2 cubic feet per second (cfs) to 10,300 cfs. Summer and autumn flows reflect State Water Project turnouts to provide contract flow releases to the ACWD specifically for purposes of groundwater recharge at the Quarry Lakes. The capacity of the ACFCC is 52,000 cfs.

3.0 Environmental Setting, Impacts, and Mitigation

3.3 Hydrology and Water Quality

ACWD has used the lakes for water storage and groundwater recharge since 1919, although diversion into the lakes for that purpose did not begin until the 1930's (EBRPD, 1985). ACWD currently diverts water from the 200 to 300 foot wide channel of the ACFCC at three points east of the site, where inflatable rubber dams span the channel. Earthen dams have also been constructed to impound and divert purchased State Water Project water between late spring and early fall. The water diversions to the Quarry Lakes form an integral part of ACWD's program of groundwater supply maintenance. The lakes are one of the primary sources of recharge for groundwater aquifers tapped by ACWD to supply water to its service area.

ACWD's Quarry Pits Rehabilitation Project

The Quarry Pits Rehabilitation Project, sponsored by the ACWD, was the subject of a recently completed Environmental Impact Report (EIR). This project's objective is to both improve and maintain groundwater recharge operations at the Quarry Lakes. Scheduled to occur between 1995 and 1997, this project will change the quantity and the quality of the water presently contained in the lakes. Most changes associated with the ACWD's project, however, are considered beneficial impacts, as described below.

A primary objective of the ACWD's project is to promote increased flow of ground water through better percolation into the aquifer at the Quarry Lakes. This would be achieved by the proposed slope reconfiguration that would reduce further sedimentation of the lakes with fine-sized materials and by raising the elevation of the water in the lakes. The higher levels in the lakes allow a greater amount of water to be collected, and produce a faster rate of percolation.

The project would raise the maximum operating water levels in the Quarry lakes to 35 feet MSL. This would represent an increase of between 7 - 11 feet when compared to their current profiles. Higher water level in the lakes would probably promote cooler water temperatures, which would help to inhibit algae growth and provide better habitat conditions for possible future fisheries. Deeper lakes may also affect light penetration that would decrease algae growth in some of the lakes.

Water Quality

Water quality of the Quarry Lakes has generally been good, although the lakes have received surface runoff from the surrounding urban area through storm drains. As a result of the ACWD's project implementation, however, water quality would improve. Four distinctive mechanisms

would be responsible for this improvement: (1) the reduction of lake sedimentation by means of slope reconfiguration; (2) the provision of cooler water temperatures made possible by the higher water levels in the lakes, (3) the inhibition of algae growth as a result of cooler water temperatures, and (4) diversion and detention of stormwater runoff from adjacent urban areas reducing contamination and trash entering the project area. ACWD's project also includes improvement of the area's storm drain bypass system and sedimentation ponds.

IMPACTS AND MITIGATION MEASURES

Significance Criteria

CEQA *Guidelines* Appendix G provides examples of hydrologic impacts that normally are considered significant, including those that would:

- "substantially degrade water quality";
- "contaminate a public water supply";
- "substantially degrade or deplete groundwater resources";
- "interfere substantially with groundwater recharge"; or
- "cause substantial flooding, erosion, or siltation."

Appendix I of the CEQA *Guidelines* gives more specific examples of potentially significant hydrologic or water quality impacts. According to Appendix I, a proposed project would have such impacts if it results in:

- Changes in currents, or the course or direction of water movements, in either marine or fresh waters;
- Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff;
- Alterations to the course or flow of flood waters;
- Discharge into surface waters, or in any alteration of surface water quality, including, but not limited to, temperature, dissolved oxygen, or turbidity;
- Alteration of the direction or rate of flow of ground waters;
- Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations;
- Substantial reduction in the amount of water otherwise available for public water supplies; and

- Exposure of people or property to water related hazards such as flooding or tidal waves.

Impact: The proposed project would decrease absorption rates, alter drainage patterns, increase the amount of surface runoff and add pollutants to surface runoff as a result of pavement for two parking lots. This impact is considered to be potentially significant.

At buildout, the project would accommodate 1,500 vehicles onsite. In order to achieve this goal, a large area of land would be paved. As a result, there would be a net increase in impervious surfaces, an alteration in the existing drainage patterns, and an increase in the amount of surface runoff. This impact could degrade the quality of stormwater in the project area. Implementation of the following mitigation would reduce impacts to less-than-significant levels.

Mitigation: EBRPD would be responsible for developing a Stormwater Pollution Prevention Plan (SWPPP) for the project that fulfills two major objectives: (1) identify the sources of sediment and other pollutants that could affect the quality of storm water discharges; and (2) describe and ensure the implementation of practices and permanent project design features to reduce sediment and other pollutants in storm water discharges.

Mitigation: In design of parking lots, EBRPD will include adequate stormwater control systems to ensure that stormwater is prevented from reaching area surface water. EBRPD will consider the use of filter mediums in catch basins of storm drains.

Mitigation: Remove pollutants from paved areas and maintain runoff quality controls that exist within the drainage system. Examples include parking lot sweeping, catch basin cleaning, road maintenance and maintenance of structural controls in the system for runoff quality management.

Impact: Maintenance activities and public use of the area could compromise water quality.

Implementation of the following mitigation would reduce impacts to less-than-significant levels.

Mitigation: Manage fertilizer and pesticide use to minimize surface runoff into the lakes as well as infiltration through soil into the groundwater basin. This management would include limited use of these materials within 50 feet of lake shores.

Mitigation: Storage of hazardous materials would not be allowed except in securely locked facilities and trash and refuse from the general public will be removed from the site as soon as practical.

Mitigation: Lake shores will be monitored for soil erosion due to the activities of the general public and repaired as soon as possible after it is detected to minimize incremental silt build up in the lakes.

Mitigation: Potential contamination of surface water from fecal matter from domestic pets and horses will be controlled by limiting concentrations of pets and horses, enforcing leash laws and pet litter clean-up and restricting access to limited areas.

3.4 **BIOLOGICAL RESOURCES**

SETTING

Site Description

Vegetation in the Quarry Lakes Park (Park) study area has been extensively disturbed by quarry excavation, filling operations and bank stabilization, with deleterious effects on topsoils and associated seed banks. Grading for bank stabilization performed as part of ACWD's rehabilitation project may remove most vegetation (approximately 85 percent) from around the edges of the lakes, but leave intact vegetation around the Park perimeter. Prior to bank stabilization non-native, disturbance-tolerant plant species, such as pampas grass (*Cortaderia selloana*), tamarisk (*Tamarix sp.*), tree tobacco (*Nicotiana glauca*), and giant reed (*Arundo donax*), predominated. It is assumed that over time, current similar vegetation will reestablish. That vegetation is described in the setting section of the Alameda County Water District's (ACWD) Quarry Pits Rehabilitation Project EIR (ESA 1995). Preliminary consultation with California Department of Fish and Game (CDFG) and East Bay Regional Park District (EBRPD) provided general information on wildlife resources within the project area. ESA reviewed the United States Fish and Wildlife Service (USFWS) lists of candidate and listed species known from the region. Reports from biologists conducting specific studies in the area (e.g. for the EBRPD Breeding Bird Atlas) were also reviewed.

ESA reviewed CDFG California Natural Diversity Data Base files (CNDDB 1995) for two USGS 7.5 minute quadrangles, Niles and Newark. These included the study area and a four mile radius around it. ESA conducted a preliminary field reconnaissance and wetland assessment in July, 1994 to delineate U.S. Army Corps of Engineers (COE) jurisdictional wetlands and describe the general wildlife community in the area.

Literature review and a habitat evaluation of the site suggested that eight special status species could potentially occur at the current time. It is not known whether this habitat will reestablish after completion of ACWD's project. These species are Alameda song sparrow (*Melospiza melodia pusillula*) (a federal category 2 (FC2), candidate for listing as threatened or endangered and a California Species of Concern (CSC)), and saltmarsh yellowthroat (*Geothlypis trichas sinosa*) (FC2, CSC). ESA conducted bird surveys for Alameda song sparrow and saltmarsh yellowthroat on May 3, 1995.

Several song sparrows were observed in the northern portion of what will become Lost Laguna during the survey. ESA classified these as Alameda song sparrows based on the proximity of the capture location (Hayward) of the type specimen, i.e., the locality from which the California Academy of Science reference skin was obtained. Although the birds were within the coyote bushes along either side of the road and within close proximity no trapping was conducted. No saltmarsh yellowthroat were observed nor heard and therefore this species is not expected to occur on site. Several other special status shore birds were observed in the project area prior to ACWD's bank stabilization project.

VEGETATION AND WILDLIFE

Botanical Resources

After bank stabilization and hydro-seeding (by ACWD, currently in progress) some native vegetation may return to the site, as areas not disturbed will provide a seed source for the stabilized areas.

The lakes themselves can be classified as a lacustrine, community, with plant species representative of Central Coast Arroyo Willow Riparian Community occupying the margins. Lacustrine communities can be relatively stable when water levels vary only slightly. However, the lakes within the Park area have dramatic water level variations, with consequent fluctuations in dissolved oxygen.

Wildlife Resources

General considerations: Wildlife habitats are not as clearly distinct as vegetation communities, which are defined by certain plant species adapted to specific environmental conditions. Wildlife habitats usually comprise more than one vegetation community, with different areas for different life cycle needs, such as foraging, nesting, and cover from predators. The two principal wildlife habitat types occurring within the Park area are discussed below.

Lacustrine habitat: Lacustrine habitat contains standing water, intermittent or permanent, from either a dammed river channel or an inland depression. Within the Park area the lakes range in size from 10 to 70 acres, and, unlike intermittent lacustrine systems, support fish. Surveys conducted within the study area recorded threadfin shad (*Dorosoma petenense*), green sunfish

(*Lepomis cyanellus*), bluegill (*L. macrochirus*), largemouth bass (*Micropterus salmoides*), hitch (*Lavinia exilicauda*), channel catfish (*Ictalurus punctatus*), white catfish (*I. catus*), common carp (*Cyprinus carpio*), Sacramento sucker (*Catostomus occidentalis*), and blackfish (*Orthodon microlepidotus*). All of these species spawn throughout the spring and summer.

Wetlands

To determine which portions of the Alameda County Water District's Quarry Pits Rehabilitation Project study area were subject to Section 404 jurisdiction (i.e., *waters of the United States*), ESA conducted a *waters* assessment on July 29, 1994, according to procedures described in COE Wetland Delineation Manual 1987 (Manual). No wetlands will be affected under the proposed development plan for EBRPD's Regional Recreation Area (ESA 1995).

IMPACTS AND MITIGATION MEASURES

Significance Criteria

The CEQA *Guidelines* Section 15065(a) specifies that a lead agency shall find that a project may have a significant effect on the environment when the project has the potential to "...substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number of a rare or endangered species...." The *Guidelines* (Appendix G) provide examples of impacts that normally are considered significant, including those that would:

- "substantially affect a rare or endangered species of animal or plant or the habitat of the species";
- "interfere substantially with the movement of any resident or migratory fish or wildlife species"; or
- "substantially diminish habitat for fish, wildlife or plants."

The *Guidelines* (Section 15380) further define "rare or endangered species" as those species officially listed as threatened, endangered, or rare under federal or California law.

Impacts were generally considered not significant if the habitats and species affected are common and widespread in the region and the State.

3.0 Environmental Setting, Impacts, and Mitigation

3.4 Biological Resources

Impact: The following EBRPD policies (EBRPD Master Plan 1988, 1992) have been established to provide guidelines for the protection, enhancement, utilization and management of the lands, waters, vegetation, and wildlife within EBRPD lands. These policies will be implemented in the development of the Regional Recreation Area. This will be a beneficial impact.

- Vegetation shall be conserved, maintained and enhanced for its own intrinsic value and for wildlife habitat through programs such as the tree hazard program, the fire hazard reduction program and the noxious weed control program.
- Noxious weeds shall be controlled by utilizing EBRPD Board-adopted integrated pest management procedures and practices.
- Restoration of indigenous vegetation, preservation of diversity and protection of populations of rare, threatened, endangered and sensitive plant species for their intrinsic wildlife and educational uses shall be conducted.
- Common wildlife populations shall be maintained and protected or populations of endangered species that have been established shall be increased.
- Fish populations shall be managed to allow fishing in accordance with both state and District ordinances.

Impact: EBRPD proposes to establish a “Natural Unit” with public trail access, install interpretive signs, and designate trail closures to protect plant and wildlife communities where appropriate, e.g. during the nesting season. All dogs will be on leashes. The District will work cooperatively with ACWD on habitat enhancement bringing about beneficial impacts to the project area.

REFERENCES

Alameda County Water District Quarry Pits Rehabilitation Project EIR (ESA, 1995).

East Bay Regional Park District (EBRP). 1992. Draft Management Policies and Guidelines. Adopted August 18. Parkland Planning Department, Oakland, California.

East Bay Regional Park District (EBRP). 1989. Master Plan. Adopted May 17, 1988. Parkland Planning Department, Oakland, California.

3.5 TRAFFIC AND TRANSPORTATION

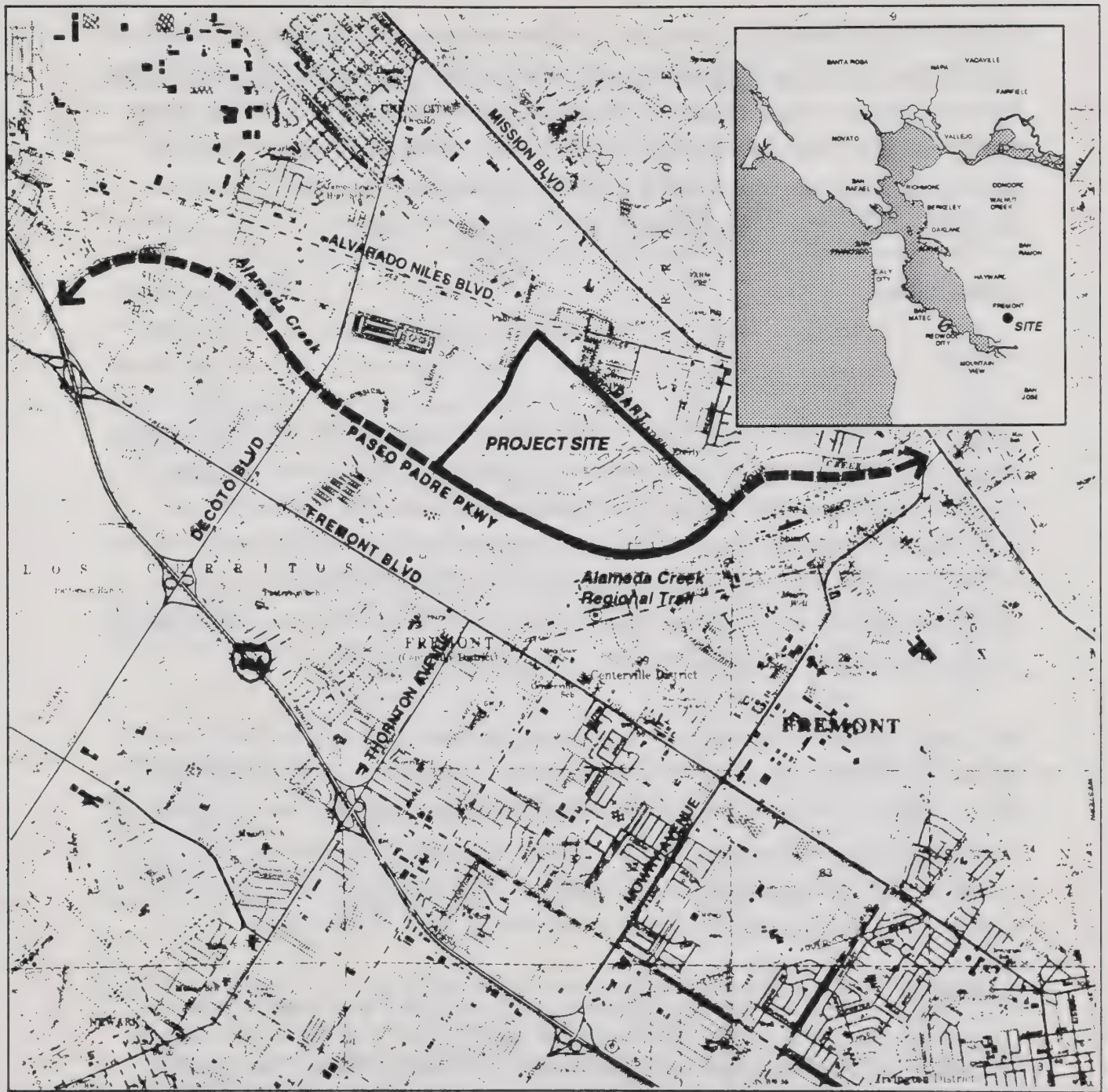
SETTING

Roadway System

Regional access to the project area is provided by Interstate 880 (I-880), located approximately two miles southwest of the project site; State Route (SR) 238, located approximately one mile northeast of the site; and SR 84, located west, south, and east of the site. I-880, known as the Nimitz Freeway, serves as the primary north-south traffic corridor in Alameda County, providing connection to I-580 and I-80 (via I-980) to the north, U.S. Highway (U.S.) 101 and I-280 to the south, as well as SR 238, SR 84 and SR 92. I-880 is a six-lane freeway in the vicinity of the project site. SR 238 (Mission Boulevard) is a four-lane divided arterial that extends southeast through the project area, providing connection to SR 84 and I-680. SR 84 connects I-880 with SR 238 via Thornton Avenue, Fremont Boulevard, Peralta Boulevard, and Mowry Avenue. I-880, SR 238, and SR 84 are City-designated truck routes within the Cities of Fremont and/or Union City (City of Fremont, 1991; City of Union City, 1986).

Figure 4 illustrates regional and local roadways within the project area. *Alvarado-Niles Road*, *Fremont Boulevard*, *Decoto Road*, *Thornton Avenue*, and *Mowry Avenue*, four-lane divided arterials, provide access to the project area from I-880. Within the project area, these arterial routes have maximum posted speed limits of 25 to 35 MPH. *Alvarado-Niles Road* narrows to two lanes, as *Niles Boulevard*, through the historic Niles District in Fremont. *Paseo Padre Parkway*, a four- to six-lane divided arterial, extends southeast of the project site south of the Alameda Creek Flood Control Channel. The maximum posted speed limit on this roadway is 40 MPH.

There are currently two vehicular and two pedestrian access points to the project site. Vehicular access to the northern section of the project site is made via *Fox Avenue*, a private (owned by BART) two-lane roadway that extends approximately one-third mile southeast from Alvarado-Niles Road to the project site. Vehicular access to the western section of the project site is currently made via an access point on *Isherwood Way*, a two-lane collector, that extends north from Paseo Padre Parkway along the western border of the project site and along the eastern border of the Mission Lakes residential subdivision. The subdivision is an integrated unit, surrounded by a wall, with access limited to Chaplin Drive and Barnard Drive; no houses face Isherwood Way or have driveway access to/from Isherwood. At the Union City city limit,



SOURCE: Environmental Science Associates

Quarry Lakes Regional Recreation Area / 950399 ■

Figure 4
Project Area
Roadway Network

Isherwood Way becomes *Quarry Lakes Drive*, which continues north to Alvarado-Niles Road via *Osprey Drive*. Signs are posted prohibiting through truck traffic on Isherwood Way; local trucks that do travel on Isherwood Way are restricted to a weight limit of five tons or less. The speed limit on Isherwood Way - Quarry Lakes Drive is 35 MPH. Pedestrian access to the southern section of the project site is made via the Alameda Creek Regional Trail, which extends west along the southern border of the project site to two gated access points to the site.

Traffic Volumes

Roadways

Table 3 presents existing daily traffic volumes on study area roadways. Weekday traffic within the project area consists primarily of commute traffic during peak traffic periods, and a mix of commercial, industrial and residential generated trips throughout the day. Daily traffic on roadways in the project area is generally highest on roadways leading to and from I-880 and SR 238. Peak-hour traffic as a percentage of daily traffic on project area roadways generally accounts for about six to eight percent during the a.m. peak hour, and eight to ten percent during the p.m. peak hour (City of Union City, 1994; City of Fremont 1991-1994).

Daily traffic volumes on weekend days were collected on roadways in the immediate vicinity of the site, i.e., Alvarado-Niles Road, Paseo Padre Parkway, and Isherwood Way / Quarry Lakes Drive.¹ As shown in Table 3, average daily volumes on weekend days are lower than weekdays on Isherwood Way and Alvarado-Niles Road, and higher on Paseo Padre Parkway. The time of the highest traffic volumes on weekend days (between 12:00 noon and 1:00 p.m.) also differs from weekdays (p.m. commute hour, occurring between 4:00 p.m. and 6:00 p.m.).

Intersections

Analysis of traffic operating conditions generally focuses on specific intersections rather than roadway segments, as the capacity of intersections controls the capacity of the roadway. Intersection level of service (LOS) is a function of traffic volumes, intersection capacity and delays. A five-level LOS scale has been established from LOS A (little or no delay) to LOS F

¹ Automatic machine traffic counts were conducted on the weekends of August 26 and 27, 1995, and September 2 and 3, 1995, by Environmental Science Associates.

TABLE 3: EXISTING DAILY AND PEAK-HOUR TRAFFIC VOLUMES ON LOCAL ROADWAYS IN THE PROJECT AREA /a/

Roadway	Location	Daily Traffic (vpd)	Peak Hour (vph)	
			AM	PM
<u>Average Weekday</u>				
Isherwood Way	north of Paseo Padre Parkway	8,190	450	760
Paseo Padre Parkway	east of Decoto Road	12,480	1,040	1,210
Alvarado Niles Road	east of Decoto Road	16,600	1,270	1,590
Niles Boulevard	east of Nursery Avenue	13,800	830	910
Decoto Road	north of Fremont Boulevard	27,670	1,930	2,240
	north of Alvarado Niles Road	25,130	1,670	2,220
Thornton Avenue	north of Fremont Boulevard	19,310	1,370	1,600
	south of Fremont Boulevard	28,620	1,930	2,240
Mowry Avenue	south of Peralta Boulevard (SR 84)	22,130	1,380	1,680
SR 238 (Mission Blvd.)	east of Decoto Road	24,800	NA	NA
	east of Sullivan Underpass	29,000	NA	NA
	east of SR 84	29,000	NA	NA
<u>Average Weekend Day</u>			<u>Noon Hour</u>	
Isherwood Way / Quarry Lakes Drive	at Union City / Fremont Limits	6,410	500	
Paseo Padre Parkway	east of Decoto Road	16,020	1,130	
Alvarado Niles Road	east of Decoto Road	15,350	1,190	

/a/ From City of Union City Department of Public Works 24-hour traffic counts, 1994; City of Fremont Department of Public Works 24-hour traffic counts, 1991-1994; Annual Average Daily Traffic Volumes, from Caltrans *1994 Traffic Volumes on California State Highways*, 1995; and 24-hour traffic counts conducted by Environmental Science Associates, weekends of August 26-27, 1995, and September 2-3, 1995.

SOURCE: Caltrans, 1995; City of Fremont, City of Union City, 1994; ESA, 1995

(significant delay); LOS D is considered the lowest acceptable level in the Cities of Fremont and Union City. See Tables 4 and 5 for descriptions of level of service conditions at signalized and unsignalized intersections.

Intersection levels of service, for weekday (1990) peak-hour conditions, reported in Caltrans' *Final Traffic Operations Report* for the Route 84 Realignment Project, are given in Table 6 (Caltrans, 1995b). Service levels at the Alvarado-Niles Road / Osprey Drive presented in the Caltrans report assumed the intersection is currently signalized; those levels of service were recomputed for this report to reflect current unsignalized conditions. Existing weekday peak-hour levels of service are LOS D or better, except at Alvarado-Niles / Osprey where left turns from Stop-sign-controlled Osprey onto Alvarado-Niles (representing about 10 to 16 percent of total intersection volume) experience LOS F conditions during the weekday peak hours. Existing weekday peak-hour traffic volumes at the Alvarado-Niles Road / Osprey Drive intersection satisfy Caltrans' traffic signal warrant criteria (Caltrans, 1992).

Also presented in Table 6 are weekend (1995) peak-hour levels of service at two intersections close to the project site, i.e., the unsignalized Alvarado-Niles Road / Osprey Drive intersection, and the signalized Paseo Padre Parkway / Isherwood Way intersection. Weekend peak-hour conditions generally are LOS A at the two study intersections. Left turns from Osprey Drive onto Alvarado-Niles Road (representing about ten percent of total intersection volume), however, experience LOS D conditions during the weekend peak hour. Existing weekend peak-hour traffic volumes at the Alvarado-Niles Road / Osprey Drive intersection do not satisfy Caltrans' traffic signal warrant criteria.

Internal Circulation

All vehicular access points to the project site are gated, restricting use of internal roads to authorized vehicles only. All internal circulation routes consist of gravel or dirt roads, which provide access to the lakes and along the levees around the lakes. The other activity within the site consists of Alameda County Water District (ACWD) Quarry Pits Rehabilitation Project work, which is scheduled to occur in 1996 and 1997. See Section 3.3 Hydrology and Water Quality for a discussion of ACWD activity.

TABLE 4: LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Level of Service	Typical Operating Characteristics	Volume/Capacity (v/c) Ratio/a/
A	Level of Service A describes a condition where the approach to an intersection appear quite open and turning movements are made easily. Little or no delay is experienced. No vehicles wait longer than one red traffic signal indication. The traffic operation can generally be described as excellent.	0.00-0.60
B	Level of Service B describes a condition where the approach to an intersection is occasionally fully utilized and some delays may be encountered. Many drivers begin to feel somewhat restricted within groups of vehicles. The traffic operation can generally be described as very good.	0.61-0.70
C	Level of Service C describes a condition where the approach to an intersection is often fully utilized and back-ups may occur behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so. The driver occasionally may have to wait more than one red traffic signal indication. The traffic operation can generally be described as good.	0.71-0.80
D	Level of Service D describes a condition of increasing restriction causing substantial delays and queues of vehicles on approaches to the intersection during short times within the peak period. However, there are enough signal cycles with lower demand such that queues are periodically cleared, thus preventing excessive back-ups. The traffic operation can generally be described as fair.	0.81-0.90
E	Capacity occurs at Level of Service E. It represents the most vehicles that any particular intersection can accommodate. At capacity there may be long queues of vehicles waiting upstream of the intersection and vehicles may be delayed up to several signal cycles. The traffic operation can generally be described as poor.	0.91-1.00
F	Level of Service F represents a jammed condition. Back-ups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration. Hence, volumes of vehicles passing through the intersection vary from signal cycle to signal cycle. Because of the jammed condition, this volume would be less than capacity.	1.01+

/a/ Capacity is defined as Level of Service E.

SOURCE: Environmental Science Associates, Inc. from *Transportation Research Circular No. 212*, Transportation Research Board, 1980.

TABLE 5: LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS,
WITH CONTROL ON MINOR STREET ONLY

<u>Level of Service</u>	<u>Typical Operating Characteristics</u>
A	Level of Service A describes a condition where the approach to an intersection appears quite open and turning movements are made easily. Little or no delay is experienced. The traffic operation can generally be described as excellent.
B	Level of Service B describes a condition where one or more critical movement approach to an intersection is occasionally fully used and short delays may be encountered. Many drivers begin to feel somewhat restricted within groups of vehicles. The traffic operation can generally be described as very good.
C	Level of Service C describes a condition where one or more critical movement approach to an intersection is often fully used and queuing may occur. The traffic operation can generally be described as good with average traffic delays.
D	Level of Service D describes a condition of increasing restriction and fewer gaps in the major street traffic flow, causing substantial delays and queues of vehicles on critical movement approaches to the intersection during short times within the peak period. The expected delay for minor street traffic is long; however, traffic operation can generally be described as fair.
E	Level of Service E describes the condition at which capacity of particular critical movement(s) is reached. It represents the most vehicles that any particular critical movement can accommodate; however, overall intersection operation may continue to operate at acceptable levels of service. At capacity there may be long queues of vehicles waiting up-stream of the critical movement. These vehicles may experience very long delays and potentially interfere with major street traffic flows. The traffic operation can generally be described as poor.
F	Level of Service F represents a jammed condition. Insufficient gaps restrict the movement of vehicles out of one or more critical movement to the intersection. Extremely long delays occur, and drivers may select smaller-than-usual gaps, potentially affecting other traffic movements at the intersection. In such cases, safety may be a problem. This condition usually warrants improvement to the intersection.

SOURCE: Environmental Science Associates, Inc. from *Highway Capacity Manual*, Special Report 209, Transportation Research Board, updated 1994.

TABLE 6: EXISTING PEAK-HOUR LEVELS OF SERVICE AT LOCAL INTERSECTIONS
IN THE PROJECT AREA

<u>Intersection</u>	<u>Type</u>	<u>AM Peak Hour</u>	<u>PM Peak Hour</u>
<u>Weekday Conditions</u>			
Alvarado-Niles Road and Osprey Drive	unsignalized		
Alvarado-Niles Road Left Turns		A	A
Osprey Drive Left Turns		F	F
Paseo Padre Parkway and Isherwood Way	signalized	B	C+
<u>Weekend Conditions</u>		<u>Noon Peak Hour</u>	
Alvarado-Niles Road and Osprey Drive	unsignalized		
Alvarado-Niles Road Left Turns		A	
Osprey Drive Left Turns		D	
Paseo Padre Parkway and Isherwood Way	signalized	A	

SOURCES: Barton-Aschman Associates, Inc., as presented in Caltrans' *Final Traffic Operations Report* for the Route 84 Realignment Project, April 1995; and Environmental Science Associates, 1995.

Bicycle/Pedestrian/Equestrian Circulation

Bicycle lanes are present on SR 238, Decoto Road, Thornton Avenue, Mowry Avenue, Paseo Padre Parkway, and Alvarado-Niles Road within the project area. Along the western border of the project site, sidewalks are present along the north and south sides of Isherwood Way. The EBRPD Alameda Creek Regional Trail extends along the southern border of the project site. The segment of this trail that extends along the south side of Alameda Creek is paved and for the use of bicycles and pedestrians. The trail on the north side is crushed rock, and provides for equestrian use as well. The Isherwood Staging Area for these trails is located along Isherwood Way just north of Alameda Creek.

Transit

AC Transit serves as the primary public transportation provider in the project area. Within the immediate project vicinity, AC Transit maintains two bus routes: the 26 line (Niles / North Fremont), which travels along Alvarado-Niles Road / Niles Boulevard, and the 20 / 20A lines (Newark Brookvale), which travel along Paseo Padre Parkway. The frequency of service for those bus routes is twice per hour on weekdays and once per hour on weekends (AC Transit, 1995). The 20 / 20A and 26 lines serve the Union City and Fremont BART stations, which are in proximity to the project site. Other AC Transit lines also serve the BART stations, allowing transfer connections between those other bus lines with the 20 / 20A and 26 lines.

Other potential transit providers include Amtrak, with a station in Centerville, and future possibilities of shuttle connectors to BART, special weekend BART stops, and future train opportunities related to passenger routes in Niles Canyon.

IMPACTS AND MITIGATIONS

Significance Criteria

According to CEQA standards, a project that would cause an increase in traffic that is substantial in relation to the existing load and capacity of the street system would have a significant adverse impact on the environment. For purposes of this EIR, the project would have a significant impact if project-generated traffic would cause intersection level of service to degrade to worse than LOS D, if vehicular/bicycle/pedestrian flow would be significantly less safe, if emergency access or access to nearby uses would be inadequate, if spillover of unmet parking demand would adversely affect parking conditions in adjacent areas, and if the project would prohibit implementation of policies adopted by jurisdictions that support alternative transportation. In the absence of quantitative data to determine safety and adequacy of access, best professional judgment has been used to analyze significant impacts. Some less-than-significant transportation impacts are also discussed below.

Future Trip Generation and Traffic Operations - Impacts

Trip Generation

The proposed project would generate vehicle trips on weekends and, to a lesser extent, on weekdays. Public uses in the park would be typically water and picnic oriented, with provisions for a variety of water-related activities to include, but not to be limited to seasonal swimming, windsurfing, boating, and fishing. Additional recreational opportunities would include daycamp and group picnic reservation uses, in addition to trail uses (walking, jogging, bicycling, and horseback riding). The EBRPD would provide additional trail loops around the lakes as well as trail loops that would connect to Regional Trails both in the Recreation and Natural Units. The Quarry Lakes Regional Recreation Area is scheduled to begin development in 1998.

Trip generation rates were derived from counts made at other Regional Parks in the Bay Area; new vehicle trips generated in the proposed park were based on the number of trips per parking space. On a typical weekday, each parking space would be expected to generate an average of 1.62 daily trips, and on a typical weekend a rate of 4.23 daily trips per parking space was used (EBRPD, 1987). On the basis of the projected 1,500 parking spaces at park buildout, the total estimated new vehicle trips would be about 2,430 daily trips on a weekday, and about 6,345 daily trips on a typical weekend day. Peak-hour vehicle trips for the project (occurring outside of the 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 weekday p.m. peak periods) were determined using Caltrans peak-hour percentages for traffic for various parks in the Bay Area (Caltrans, 1979). Caltrans studies indicate that peak-hour park-use trips (generally occurring in the early afternoon) represent about 16 percent of daily weekday trips, and about 18 percent of daily weekend trips; the number of weekday peak-hour trips generated by the project (at buildout) would be about 390 vehicles, and for weekend days, about 1,140 vehicles.

Trip Distribution/Assignment

On the basis of projections of relative populations, by the Association of Bay Area Governments (ABAG), for communities surrounding the project site, it is expected that there would be an approximate 50/50 split of site-generated traffic north and south of the site.² It is also anticipated that, on the basis of project site main entrance location (in proximity to the city line between the

² Population projections for an area defined by the Cities of San Leandro and Castro Valley to the north, San Francisco Bay to the west, the City of Milpitas and northern San Jose to the south, and the I-680 corridor to the east were taken from ABAG's *Projections '94*.

Cities of Union City and Fremont) and availability of access from either Alvarado-Nile Road or Paseo Padre Parkway (tempered by the fact that making a left turn from Osprey onto Alvarado-Niles at the currently unsignalized intersection is more difficult than turning right from Isherwood onto Paseo Padre at the signalized intersection), there would be an approximate 40/60 split of project-generated traffic between Alvarado-Nile Road and Paseo Padre Parkway. Site access would be provided on Isherwood Way from Paseo Padre Parkway, and on Quarry Lakes Drive from Alvarado-Niles Road via Osprey Drive.

On the basis of the above-described trip distribution, inbound and outbound park traffic was assigned to the Alvarado-Niles Road / Osprey Drive and Paseo Padre Parkway / Isherwood Way intersections as follows:

Inbound Traffic:

Alvarado-Niles left turn	about 25 percent
Alvarado-Niles right turn	about 25 percent
Paseo Padre left turn	about 25 percent
Paseo Padre right turn	about 25 percent

Outbound Traffic:

Osprey left turn	about 10 percent
Osprey right turn	about 25 percent
Isherwood left turn	about 25 percent
Isherwood right turn	about 40 percent

Caltrans is currently studying various alternatives for the proposed realignment of State Route (SR) 84. Among the alternatives under study is an Historic Parkway alignment that would cross Paseo Padre Parkway, Quarry Lakes Drive and Alvarado-Niles Road in the project vicinity; the other alternatives would be outside the immediate project vicinity. Possible redistribution of park-generated traffic caused by construction of the Historic Parkway alternative will be evaluated by Caltrans as part of their on-going analysis of the SR 84 realignment project, including the project's environmental assessment.

Traffic Operations

Table 7 presents future weekday peak-hour level of service conditions at intersections in the project vicinity, based on cumulative (2015) conditions, as reported under 2015 No-Build (i.e., no SR 84 realignment) conditions in Caltrans' *Final Traffic Operations Report* for the Route 84 Realignment Project (Caltrans, 1995b). Caltrans' analysis assumes the currently unsignalized Alvarado-Niles Road / Osprey Drive intersection would be signalized under all future scenarios; the existing condition is analyzed as if the intersection is signalized to allow direct comparison to the future scenarios. Park-generated traffic under park buildout (i.e., with 1,500 on-site parking spaces) would not significantly affect intersection operations because peak park-generated weekday traffic would be expected to occur during non-commute periods, i.e., would not occur during the 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. weekday peak periods. The projected peak-hour LOS F conditions at Paseo Padre / Isherwood, however, would be incrementally worsened by the park traffic that would occur at that time.

Table 8 presents weekend noon-hour level of service conditions with addition of project traffic at intersections in the project vicinity. As shown in Table 8, under current Stop-sign control, addition of project traffic to existing traffic would result in degradation of the minor street left-turn service level to an unacceptable LOS F condition at the Alvarado-Niles Road / Osprey Drive intersection. The Paseo Padre Parkway / Isherwood Way intersection would operate at an acceptable level of service (LOS B or better). If a traffic signal were installed at the Alvarado-Niles / Osprey intersection, as warranted under existing weekday conditions and assumed by Caltrans' *Final Traffic Operation Report* analysis of State Route 84 realignment project alternatives, service levels would be acceptable (i.e., LOS C or better).

Table 8 presents changes in weekend peak-hour levels of service on the basis of two assumptions regarding project trip generation, namely that peak-hour project traffic added to existing traffic (1) represents trip generation under project buildout conditions; and (2) occurs during the peak hour of existing weekend traffic (i.e., 12 noon to 1:00 p.m.). Buildout of the park, however, would be phased in over a period of time, and increases in traffic volumes at the adversely affected Alvarado-Niles / Osprey intersection would likewise occur over the buildout period. The level of service at Alvarado-Niles / Osprey would drop from acceptable LOS D to unacceptable LOS E when park development would trigger construction of about 250 to 300 parking spaces. Peak inbound weekend park-generated traffic would be expected to actually occur in the morning hours, prior to 12 noon, while peak outbound traffic would be expected to actually occur in the afternoon hours, after 1:00 p.m. Therefore, this report is conservative in its analysis. Because the project would be expected to contribute to the need for a traffic signal at

**TABLE 7: INTERSECTION LEVELS OF SERVICE (LOS) - EXISTING AND FUTURE
(YEAR 2015) CONDITIONS (*WEEKDAYS*) UNDER SIGNALIZED CONDITIONS**

Analysis Condition	Alvarado-Niles Rd. and Osprey Dr. /a/	Paseo Padre Pkwy and Isherwood Dr.
<u>AM Peak Hour</u> <i>(in 7-9 a.m. peak period)</i>		
Existing (1990)	B	B
2015 No-Build /b/	B+	F
<u>PM Peak Hour</u> <i>(in 4-6 p.m. peak period)</i>		
Existing (1990)	B	C+
2015 No-Build /b/	D+	F

/a/ Traffic signal is warranted on the basis of existing weekday peak-hour traffic volumes.

/b/ 2015 No-Build conditions represent conditions without the SR 84 realignment project.

SOURCE: Barton-Aschman Associates, Inc.; and De Leuw, Cather & Company, Inc., 1994

**TABLE 8: INTERSECTION LEVELS OF SERVICE (LOS) - EXISTING AND EXISTING
PLUS PROJECT CONDITIONS (*NOON HOUR ON WEEKENDS*)**

Analysis Condition	Alvarado-Niles Road / Osprey Drive		Paseo Padre Pkwy and Isherwood Dr.
	Entire Intersection (<i>Minor Left Turn</i>)	Entire Intersection (<i>If Signalized</i>)	
Existing (1995)	A (D)	n.a. /a/	A
Existing + Project Buildout	B (F)	A	B

/a/ Traffic signal is not warranted on the basis of weekend peak-hour traffic volumes under existing conditions.

SOURCE: Environmental Science Associates

the Alvarado-Niles Road / Osprey Drive intersection under buildout conditions, however, the project impact would be considered to be significant. Implementation of the following mitigation would reduce impacts to less-than-significant levels.

Mitigation: The District would participate in negotiations to establish a fair share contribution to the installation of a traffic signal at the Alvarado-Niles Road / Osprey Drive intersection, at the time of signal installation by the responsible jurisdiction.

Traffic Queuing at the Park Main Entrance

On the basis of experience with similar water recreation parks in the District, with three persons in the park entrance kiosk processing two vehicles at a time, a peak queue length of up to 30 vehicles during mornings on summer weekend days is projected; queue lengths would be shorter on weekdays and during other time periods on weekends (Gigliati, 1995). Preliminary project site design plans envision the park entrance kiosk to be located about 100 feet from Quarry Lakes Drive - Isherwood Way, accommodating about four or five vehicles. Based on the expected 50/50 split of inbound project-generated traffic from Alvarado-Niles Road and Paseo Padre Parkway, the left-turn and right-turn lanes would each need to be about 260 feet, each able to accommodate about 13 vehicles.

The project's main entrance would be located on Quarry Lakes Drive - Isherwood Way in proximity to the city line between the Cities of Union City and Fremont, where curbs exist on both side of the road. Separate left- and right-turn lanes would be needed to accommodate entering traffic. The curb-to-curb width of this roadway, where curbs exist on both sides, is about 38 feet, and the pavement width is about 28 to 30 feet where a curb exists on only one side. Without roadway widening, the queues of vehicles wishing to turn left and right into the park entrance would block the existing single travel lane in each direction, impeding through traffic flow; that impedance would be considered a significant impact. The roadway on the Isherwood Way side of the park entrance would need to be widened about six feet in the immediate area of the entrance to provide adequate width for a ten-foot-wide right-turn lane, two 12-foot-wide through lanes, and a ten-foot-wide painted median opposite the left-turn lane on the Quarry Lakes Drive side of the entrance. The widened section would be transitioned back to the existing width on Isherwood Way, and the total length of the right-turn lane would need to be about 260 feet; Mission Lakes residential subdivision is about 800 feet from the proposed park main entrance and would not be affected by the queue in the right-turn lane. The unimproved portion of Quarry Lakes Drive in Union City would need to be widened for about 180 feet from the point where the

existing road has curb on both sides in order to provide adequate width and length for a ten-foot-wide, 260-foot-long left-turn lane, and two 12-foot-wide through lanes. Implementation of the following mitigation would reduce impacts to less-than-significant levels.

Mitigation: The District would widen Quarry Lakes Drive - Isherwood Way in the vicinity of the park entrance to provide separate ten-foot-wide left-turn and right-turn lanes (of about 260 feet in length) and two 12-foot-wide through lanes, or would provide adequate queuing capacity on-site through use of two or more kiosks, or a combination of increased on-site queuing capacity and Quarry Lakes Drive widening, so as to accommodate queue lengths generated by entering vehicles without impeding through traffic on Quarry Lakes Drive - Isherwood Way.

Safety - Impacts

As a result of increased activity in the project area (i.e., added vehicular, bicycle and pedestrian traffic), the project may result in an increase in potential conflicts between both park-related and non-park traffic. The physical geometrics and intersection controls (i.e., signalization) currently in place, and proposed to be added as part of Union City's DIPSA Specific Plan development, however, would safely accommodate the mix of traffic under project conditions.

Mitigation: None required.

Emergency Access - Impacts

Park design incorporates emergency connections on Isherwood Way, Quarry Lakes Drive and Alameda Regional Trail, which would provide sufficient emergency access. The District would also provide emergency helicopter service. Thus, the project would not create significant impacts due to inadequate emergency access.

Mitigation: None required.

Parking - Impacts

Vehicle trip generation for recreational uses is a function of available parking spaces, both on-site and off-site (legal and illegal). Provision for on-site parking for the project would be tied to development of park facilities. As both land and funding become available, parking capacity of up to 1,500 vehicles would be achieved at project build-out. If development of recreational uses precedes development of parking areas to accommodate the parking demand generated by

resulting vehicle trips, then the unmet parking demand would spillover into nearby off-site areas, creating adverse impacts on adjacent land uses. The timing, and balancing, of implementation of recreational opportunities, provision for parking, and provision for improved transit service to the park would need to be monitored, and operations phased or modified to avoid adverse impacts. Without such phasing, project impacts, with respect to parking, would be potentially significant. Implementation of the following mitigation would reduce impacts to less-than-significant levels.

Mitigation: The District would conduct monitoring surveys of park-generated parking demand, and parking occupancy conditions in both on-site and off-site parking areas (within a 1/4-mile radius of the site), within one year of each phased parking lot construction. If the monitored parking demand generated by park uses exceeds the on-site supply and if spillover of unmet parking demand adversely affects parking conditions in adjacent areas, then the District would take corrective actions in the form of increasing the number of on-site parking spaces or encouraging, through information of incentives, use of transit service to the park. If on-site parking spaces are underutilized, at time when off-site parking impacts occur, the District would implement incentive strategies, or take cooperative actions with the Cities of Fremont and Union City to encourage greater use of on-site parking spaces.

Plans and Policies

Goal F-11, "Increased Transportation Alternatives and Reduced Dependency on the Automobile" of the City of Fremont's *General Plan* states the City's adopted policy to promote strategies that discourage automobile dependence and encourage the implementation of transportation alternatives that can shift current trends to more environmentally and financially sound options. As part of the Quarry Lakes Regional Recreation Area Land Use Development Plan, the District is committed to facilitating transit access alternatives, including potential AC Transit service to the park, and shuttle routes to/from the Fremont and/or Union City BART stations. Implementation of measures to encourage the use of public transit and other non-auto travel modes would comply with the City of Fremont's adopted policy, and the project effects on Plans and Policies would be less than significant.

Mitigation: None required.

REFERENCES - Traffic and Transportation

AC Transit, *AC Transit Street & Route Map*, May 1995.

Caltrans, *12th Progress Report on Trip Ends Generation Research Counts*, 1979.

Caltrans, *Traffic Manual*, Chapter 9 - Traffic Signals and Lighting, April 1992.

Caltrans, *1994 Traffic Volumes on California State Highways*, 1995a.

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EBRPD, *Tilden Regional Park Land Use Plan: Traffic Report*, (prepared by CH2M Hill), 1987.

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3.6 AIR QUALITY

SETTING

Climate and Meteorology

The primary factors that determine air quality are the locations of air pollutant sources and the amounts of pollutants emitted. Meteorological and topographical conditions, however, are also important. Atmospheric conditions such as wind speed, wind direction, and air temperature gradient interact with the physical features of the landscape to determine the movement and dispersal of air pollutants.

The San Francisco Bay Area climate is Mediterranean in character, with mild, rainy winter weather from November through March, and warm, dry weather from June through October. Persistent subsidence inversions (i.e., warmer air layer acting as a type of cap on the underlying cooler air layer) occur frequently over the Bay Area, especially during fall and winter, and act to restrict vertical dispersion of pollutants released near ground level. The topographical features that contour the Bay Area serve to channel surface air flow but sometimes also inhibit dispersion of pollutant emissions.

Winds in Fremont are typically out of the northeast, north, or northwest. These three wind directions account for approximately 53 percent of all winds on an annual basis (CARB, 1984). Winds are most variable during winter and most persistent during summer. In summer, winds shift to a more westerly orientation. Wind speeds are highest during spring and lowest in fall. The annual average wind speed recorded in Fremont is approximately four miles per hour. Calm conditions occur frequently during nighttime hours during all seasons and, during winter, calm conditions persist into the late morning hours as well.

Air Quality Regulatory Context

Federal

As directed by the federal Clean Air Act (CAA), the U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS) for the six "criteria" air pollutants: ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), suspended particulate matter less than 10 microns in size (PM₁₀), and lead (Pb). These standards represent the levels of air quality necessary, with an adequate margin of safety, to protect the

public health and welfare. The NAAQS and State Ambient Air Quality Standards (SAAQSs) are shown in Table 9.

Pursuant to the 1990 CAA Amendments, the EPA has classified Air Basins, or portions thereof, as either "attainment" or "non-attainment" for each criteria air pollutant, based on whether or not the NAAQS have been achieved. O₃ non-attainment areas are categorized as "extreme," "severe," "serious," "moderate," or "marginal." The CO and PM₁₀ non-attainment regions are divided into "serious" and "moderate" classifications. The City of Fremont is located within the San Francisco Bay Area Air Basin, which the EPA has recently reclassified as a maintenance area for O₃. The urbanized areas of the Air Basin are classified as non-attainment for CO, although the Bay Area Air Quality Management District (BAAQMD) has recently applied for a change of classification to "maintenance" based upon recent improvements in basin-wide CO concentrations. The Air Basin is classified as an attainment area for SO₂ and Pb and is unclassified for PM₁₀ and NO₂. Unclassified is defined by the Federal Clean Air Act Amendments as any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

State

The Air Resources Board (CARB), California's state air quality management agency, regulates mobile emissions sources, and oversees the activities of County Air Pollution Control Districts and regional Air Quality Management Districts. CARB indirectly regulates local air quality by having established state ambient air quality standards and vehicle emission standards, by setting guidelines, by conducting research activities, and by planning and coordinating activities.

California has adopted ambient standards for the criteria air pollutants that are more stringent than the federal standards. The State Ambient Air Quality Standards (SAAQS) are shown in Table 9. The California Clean Air Act, passed in 1988, calls for the establishment of a program to secure air quality data for each Air Basin in the State, and to inventory and monitor air pollutants. SAAQS have also been established for certain pollutants not covered by the NAAQS, such as hydrogen sulfide and vinyl chloride. Under the California Clean Air Act, patterned after the federal Act, areas have been designated as attainment or non-attainment in

TABLE 9: STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS

<u>Pollutant</u>	<u>Averaging Time</u>	<u>SAAQS/a/</u>	<u>NAAQS/b/</u>
Ozone	1 hour	0.09 ppm/c/	0.12 ppm
Carbon Monoxide	1 hour	20 ppm	35 ppm
	8 hour	9.0 ppm	9 ppm
Nitrogen Dioxide	1 hour	0.25 ppm	NA
	Annual	NA	0.053 ppm
Sulfur Dioxide	1 hour	0.25 ppm	NA
	3 hour	NA	0.5 ppm
	24 hour	0.04 ppm	0.14 ppm
	Annual	NA	0.03 ppm
Suspended Particulate Matter	24 hour	50 $\mu\text{g}/\text{m}^3$ /c/	150 $\mu\text{g}/\text{m}^3$
	Annual	30 $\mu\text{g}/\text{m}^3$	50 $\mu\text{g}/\text{m}^3$
Sulfates	24 hour	25 $\mu\text{g}/\text{m}^3$	NA
Lead	30 day	1.5 $\mu\text{g}/\text{m}^3$	NA
	Calendar Quarter	NA	1.5 $\mu\text{g}/\text{m}^3$
Hydrogen Sulfide	1 hour	0.03 ppm	NA
Vinyl Chloride	24 hour	0.010 ppm	NA

/a/ SAAQS (i.e. California standards) for ozone, carbon monoxide, sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter are values that are not to be exceeded. All other California standards shown are values not to be equaled or exceeded.

/b/ NAAQS (i.e. national standards), other than ozone and those based on annual averages, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.

/c/ ppm = parts per million by volume; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

NA: Not Applicable.

SOURCE: California Air Resources Board, *Area Designations for State and National Ambient Air Quality Standards*, September 1993.

relation to the SAAQS (rather than the national standards). The nine-county Bay Area has been designated as "non-attainment" with respect to the state standards for O₃ and PM₁₀, but "attainment" for state CO, NO₂, SO₂, and Pb standards (CARB, 1994).

Regulatory Agencies

EPA promulgates rules and standards under federal air quality legislation. Implementation and enforcement of these rules and standards are largely delegated to state and regional air quality agencies. In California, CARB is the state agency that is responsible for the implementation of certain EPA regulations and standards and has primary responsibility for regulating mobile sources and for overseeing the local and regional air quality agencies. On a regional level, the BAAQMD is the agency responsible for air quality regulations within the San Francisco Bay Area Air Basin. The BAAQMD regulates air quality through its permit authority over most types of stationary emission sources and through its planning and review activities. The BAAQMD uses its permit authority to implement federal and state requirements related to both criteria and toxic air pollutants.

The *Bay Area '94 Clean Air Plan ('94 CAP)* describes the Bay Area's current plans for meeting state clean air laws (Association of Bay Area Governments, et al., 1994). The goal of the '94 CAP is to improve air quality through the 1990s through tighter industry controls, cleaner cars and trucks, cleaner fuels, and increased commuter alternatives. The '94 CAP encourages cities and counties to adopt measures in support of this goal.

Existing Air Quality

Criteria Air Pollutants

The BAAQMD's regional air quality monitoring network provides information on ambient concentrations of criteria air pollutants. Table 10 is a five-year summary of highest annual criteria air pollutant concentrations, collected at the BAAQMD's air quality monitoring station on Chapel Way in Fremont, approximately two miles southeast of the project site. With the exception of CO, measured pollutant levels would be representative of the project site due to the proximity of the Chapel Way monitoring station in relation to the project site. In Table 10, air pollutant concentrations are compared with applicable SAAQS, which are generally more stringent than the corresponding NAAQS.

TABLE 10: FREMONT AIR POLLUTANT SUMMARY, 1989-1993

Pollutant	Std./c/	Monitoring Data by Year /a/				
		1989	1990	1991	1992	1993
<u>Ozone (O₃):</u>						
Highest 1-hr. average, ppm/b/ Days/Hours /d/	0.09	<u>0.12</u> 11/21	<u>0.13</u> 3/7	<u>0.12</u> 6/15	<u>0.12</u> 5/9	<u>0.13</u> 1/1
<u>Carbon Monoxide (CO):</u>						
Highest 1-hr. average, ppm Number of excesses	20	9 0	8 0	7 0	7 0	7 0
Highest 8-hr. average, ppm Number of excesses	9.0	5.6 0	5.1 0	5.4 0	4.5 0	3.6 0
<u>Particulate Matter (PM₁₀):</u>						
Highest 24-hr. average, µg/m ³ /b/ Days/Samples/e/	50	<u>77</u> 5/48	<u>136</u> 10/61	<u>92</u> 14/59	<u>92</u> 4/61	<u>77</u> 3/61
Annual Geometric Mean, µg/m ³	30	29.1	27.1	27.7	23.7	22.3

/a/ All data are from the monitoring station on Chapel Way in Fremont.

/b/ ppm = parts per million; µg/m³ = micrograms per cubic meter.

/c/ State standard, not to be exceeded.

/d/ Days/hours refers to the number of days during which excesses of the state standard were recorded in a given year and the total number of excesses during that year.

/e/ Particulate is usually measured every sixth day (rather than continuously like the other pollutants). "Days/samples" indicates the number of excesses of the state standard that occurred in a given year and the total number of samples that were taken that year.

NOTE: Underlined values are in excess of applicable standard.

SOURCE: California Air Resources Board, *Air Quality Data Summaries*, 1989-1993.

Ozone (O₃)

O₃ is not emitted directly into the atmosphere, but rather is produced through a photochemical reaction involving precursor emissions, hydrocarbons (HC) and nitrogen oxides (NO_x). Motor vehicles are the major source of HC and NO_x in the Bay Area. As shown in Table 10, O₃ concentrations in Fremont have exceeded the state standard at least three days per year during four out of the five past years. While O₃ concentrations are expected to decline given existing

emission controls strategies and given the additional measures that will be implemented under the '94 CAP, the SAAQS for O₃ is still not expected to be achieved at all times in places in the Bay Area by the turn of the century.

Carbon Monoxide (CO)

CO is an odorless, invisible gas usually formed as the result of incomplete combustion of organic substances. Most of the CO emitted in the Bay Area comes from motor vehicles (CARB, 1995). Ambient concentrations normally correspond closely to the spatial and temporal distributions of vehicular traffic. CO concentrations also are influenced by wind speed and atmospheric mixing. Under inversion conditions, CO concentrations may be distributed more uniformly over an area out to some distance from vehicular sources. Table 10 shows that excesses of the SAAQS for CO have not occurred in the vicinity of Chapel Way in Fremont over the past five years. Future CO concentrations are expected to decline due to the natural replacement of older, more polluting automobiles with newer, cleaner-running models.

Respirable Particulate Matter (PM₁₀)

Respirable particulates (PM₁₀) are particulates less than ten microns in diameter. Sources of PM₁₀ include stationary point sources, such as fuel combustion and industrial processes, fugitive sources, such as roadway dust from paved and unpaved roads, wind erosion from open land, and transportation sources, such as automobiles (CARB, 1995). Table 10 shows that PM₁₀ concentrations have exceeded state standards in each of the past five years. PM₁₀ concentrations are expected to increase through the rest of the 1990's.

City of Fremont Plans and Policies

The City of Fremont *General Plan* contains a Natural Resources Element including an objective to improve air quality. Relevant policies to implement this objective include: discouraging the development of land uses considered to be sensitive to poor air quality in areas adjacent to potential air quality problems and reducing particulate emissions (City of Fremont, 1991).

Sensitive Receptors¹

Land uses such as schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because infants, the elderly, and people with health afflictions,

¹ The "sensitive receptors" can refer both to the population groups of concern and to the facilities (land use categories) where such groups are likely to reside or spend a substantial amount of time (BAAQMD, 1993).

especially respiratory ailments, are more susceptible to respiratory infections and other air-quality-related health problems than the general public. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. The nearest receptors to the project site includes single family residences located around the northeastern and northwestern perimeters of the sites. The residences northeast of the site are located along Carnation Way and Montecito Drive, approximately 150 feet from the northern edge of the project site. The closest residences to the project site are to the northwest, and are separated from the site by the width of Isherwood Way and its shoulders, which constitutes approximately 50 feet.

IMPACTS AND MITIGATION

Introduction to the Analysis

Air quality impacts can result from the associated construction activities and from the operation of a project. Construction emissions would be considered short-term impacts, while operational emissions would continue to affect air quality throughout the lifetime of a project. The project would generate pollutant emissions due to construction of necessary parking spaces, a park accessory building, and minor trail grading and due to the long-term generation of motor vehicle trips.

It should be noted that construction activities for the project would be isolated, by the timing of the project, from grading, filling, excavation and trimming activities associated with the Alameda County Water District (ACWD) *Quarry Pits Rehabilitation Project*. It is assumed that necessary construction for the ACWD project would be completed by the summer of 1998, when construction of the EBRPD project is scheduled to begin.

Methodology

Construction emissions of dust (PM_{10}) were estimated for this project on the basis of emission factors published in the United States Environmental Protection Agency's *Compilation of Air Pollution Emission Factors*, AP-42. The U.S. EPA estimates about 1.2 tons of particulate matter is generated per acre of construction per month during the construction life of any specific development project. Approximately 64% of those airborne TSPs resulting from construction operations consist of PM_{10} . Therefore, the adjusted emission factor is equivalent to approximately .8 tons of PM_{10} per acre of construction per month.

Mobile source emissions, generated by increased vehicle trips associated with the project, were calculated using BAAQMD composite emission factors. Estimated criteria pollutant emissions assume that the average vehicle speed in the project vicinity would be 35 mph and that the average vehicle trip to the recreational area would be approximately 5 miles (BAAQMD, 1993). The number of vehicle trips generated was multiplied times the trip length and then multiplied by the emission factor specific to each pollutant to yield the projected emissions associated with project buildout.

Intersection level of service (LOS) is a function of traffic volumes, intersection, capacity and delays. As defined in the traffic analysis, intersections with a LOS of C or better would indicate that traffic operations at a given intersection could generally be described as good, very good, or excellent. "Good" traffic conditions would suggest that vehicle idling time would not be substantial and, therefore CO concentrations would likely be low. CALINE4, a line-source dispersion model developed by Caltrans, was used to estimate local intersection CO concentrations where the LOS was projected to be lower than LOS C as a result of the project. Model inputs were based on worst case meteorology for the modeled peak-hour (1.0 meter / second wind speed, D stability, and 25 degrees sigma theta) and BAAQMD composite CO emission factors.

Significance Criteria

A project would normally have a significant air quality impact if it would cause a violation of air quality standards, contribute substantially to existing or projected air quality violations, or expose sensitive receptors to substantial concentrations of air pollutants (Governor's Office of Planning and Research, 1994).

In addition to the criteria mentioned above, BAAQMD recommends using the more stringent of two tests to determine whether project emissions would be significant. Under BAAQMD *Guidelines*, a project would be significant if criteria pollutant emissions of HC, NO_x, SO_x, or total suspended particulate (TSP) from direct and indirect sources would exceed 150 lb/day, or if emissions of CO, HC, NO_x, SO_x, or TSP would exceed one-percent of County-wide emissions. Since this report discusses particulate emissions in terms of PM₁₀ rather than TSP, of which it is a subset, the applicable significance criterion will be 80 lb/day.²

² Total Suspended Particulate (TSP) represents the fraction of dust characterized by particles with diameters less than 30 microns in length. Early ambient particulate standards applied to TSP, but have now been revised to focus on the finer particles, i.e.,

Impact: Construction of 1,500 parking spaces would generate fugitive dust and exhaust emissions from construction vehicles. This would be a significant impact.

Construction of the project would generate fugitive dust and criteria air pollutants from exhaust emissions. Because the mix of construction equipment is very speculative equipment emissions are not quantified. However, it is expected that gaseous pollutant emissions from construction vehicles and necessary equipment would be temporary and would not represent a significant air quality impact. The primary fugitive emissions associated with construction activities would be particulate matter (dust).

Dust emissions related to construction vary substantially from day to day, depending on the level and type of activity, silt content, and weather conditions. Nearby sensitive receptors and workers may be exposed to windblown dust. Sources of fugitive dust include land clearing and grading, equipment and motor vehicle traffic over temporary roads, and construction employee travel to and from the project site. This analysis assumes soils disturbed during construction activities would be redistributed on the project site (rather than be hauled off the site).

The larger particles of dust would settle on the project site. The smaller particles of dust, with a size of ten microns or less in diameter, would be airborne PM_{10} and could be carried off-site by wind. Construction associated with the project consists primarily of constructing parking areas to accommodate park usage and includes a maximum of 1,500 parking spaces. It is likely that the duration of construction activities would occur in the range from six months up to one year and would begin as early as the summer of 1998. In order to provide a worst case analysis, it was assumed that construction activities required for all 1,500 parking spaces would occur concurrently rather than in phases. Assuming each parking space would require 500 square feet, construction would occur on a total of 450,000 square feet (10.3 acres). Using the adjusted EPA emission factor of .8 tons of PM_{10} emissions per month per acre (and assuming each month would consist of an average of 22 work days with no dust controls), the project would generate an estimated 719 lb/day of PM_{10} for the duration of the construction activities (see Table 11). The estimated 719 lb/day of PM_{10} exceeds the BAAQMD's significance threshold of 80 lb/day. Therefore, estimated daily PM_{10} emissions would pose a potentially significant impact.

those less than 10 microns in diameter. The criterion of 80 lb/day represents 53 percent of the 150 lb/day TSP criterion which is consistent with the weight fraction of PM_{10} in the TSP inventory for the Bay Area (BAAQMD, 1993)

Minor grading may be required to complete trailway connections within the park boundaries. The project could also include the construction of an accessory building (which may include refreshments, bike rental, boat rental, or other recreational equipment rentals) not to exceed 30 feet in height. If this building were to be constructed simultaneously with the parking areas, the fugitive dust impacts would be increased. Alone, the emissions generated by the construction of a single, under 30 feet high building and minor grading would have a less than significant impact.

Mitigation: A policy of the City of Fremont *General Plan* is to reduce particulate emissions. As a condition of project approval, the following dust abatement program should be implemented by the contractor to mitigate dust impacts:

- Active construction areas should be watered at least twice per day. Watering should be increased if wind speeds exceed 15 miles per hour. Effective watering generally reduces dust by as much as 50 percent over uncontrolled conditions.
- Truck speeds should be limited on the project site to 25 miles per hour.
- Replace ground cover in disturbed areas as quickly as is practical.
- Enclose, cover, water twice daily, or apply soil binders to exposed stock piles (e.g. sand, gravel, or dirt).
- Sweep up dirt or debris spilled onto paved surfaces as soon as practicable to reduce suspension of particulate matter through vehicle movement over these surfaces.
- Designate a person or persons to oversee the implementation of a comprehensive dust control program and to increase watering, as necessary.
- Cover all trucks hauling dirt, sand, soil, or other loose materials.

Together, the above PM_{10} mitigation measures would reduce construction-related PM_{10} by approximately 75 percent, decreasing construction particulates to an approximate 179 lb/day.

Although the resultant emissions after mitigation remain above the 80 lb/day significance criterion, additional factors related to the project location and construction duration would indicate a less than significant impact. The duration of construction activities would likely be within the range of six months to one year, and therefore would not include a significant period of time. Because the nearest sensitive receptors in the vicinity of the construction activities are residents located along Isherwood Way (west of the construction area) and prevailing winds travel from the north and west, the degree of impact would not be substantial. Therefore, construction activities would result in a less than significant impact.

TABLE 11: ESTIMATED INCREASE IN DAILY EMISSIONS OF CRITERIA AIR POLLUTANTS DUE TO PROJECT, 2000

Air Pollutant	Emissions (pounds/day)			Alameda County/c/	Increase in Emissions as a Percent of County Emissions (%)
	Mobile Sources/a/	Project Fugitive Sources/b/	Total		
CO	448	-	448	1,120,000	0.04
NO _x	65	-	65	188,000	0.03
SO _x	5	-	5	22,000	0.02
TOG	39	-	39	460,000	<0.01
PM ₁₀	20	719	739	168,000	0.44

- /a/ Based on US EPA, 1993, *Compilation of Air Pollution Emission Factors (AP-42)*, BAAQMD, 1993, EMFAC7F Emission Factors, and California Air Resources Board, 1993, ENVO28 Model (EMFAC7F) for heavy-duty diesel trucks.
- /b/ Based on U.S. EPA, 1993, *Compilation of Air Pollution Emission Factors (AP-42)* for construction activities.
- /c/ Based on emissions for Alameda County, California Air Resources Board, *Emission Inventory 1993, 1995*.

SOURCE: Environmental Science Associates, 1995.

Impact: Criteria air pollutants generated by the operation of the recreational area would increase total air pollutant emissions in the region. This would be a less than significant impact.

Park activities planned for the recreational area would be water-oriented and would include swimming, windsurfing, non-fuel based boating, and fishing. Other foreseeable land-based recreational activities would include hiking, bicycling, picnicking, horseback riding, group picnicking, day camps and possibly overnight camping. These recreational activities could include barbecuing and campfires. Because there would be a limited number of campfires and barbecues, they would not be a significant impact.

Long-term air quality would be adversely affected by air pollutant emissions produced primarily by mobile sources. These emissions would be the result of new vehicle trips associated with the recreational facility. The proposed project is estimated to generate vehicle trips on weekends and, to a lesser extent, on weekdays. On the basis of the projected 1,500 parking spaces, the traffic analysis estimated the project would generate 2,430 daily trips on a weekday, and about 6,345 daily trips on a weekend day at park buildout. Assuming the average daily trip to access

the recreational area would be about 5 miles, the number of daily trips would be equivalent to approximately 12,150 vehicle miles per day on weekdays, and about 31,725 vehicle miles on weekend days. Since weekend days would generate over twice as many vehicle trips, weekend vehicle miles were used to estimate worst case emission releases on a given day. This analysis assumes that the recreational area would be completed and operating at full capacity by the year 2000.

Estimated daily emissions associated with project-generated vehicle miles per day, as shown in column 2 of Table 11, would not exceed the threshold of significance for any of the pollutants. As a percent of Alameda County mobile-source emissions in 2000, overall project emissions would be equivalent to less than 1.0% of CO, NO_x, SO_x, TOGs, and PM₁₀. Therefore, the addition of project-generated emission would have a less than significant impact on air quality.

Mitigation: None required.

Impact: Mobile source emissions due to the operation of the project would increase carbon monoxide concentrations at intersections in the project vicinity. This would be a less than significant impact.

In addition to mobile source emissions generated by project-related traffic, emissions of CO could have a separate effect on local air pollution and could potentially expose sensitive receptors to unhealthy levels of CO. The project would affect carbon monoxide concentrations at local intersections within the project vicinity including the Alvarado-Niles Road / Osprey Drive intersection, and the Paseo Padre Parkway / Isherwood Way intersection. Those sensitive receptors identified along Isherwood Way and residents at the southwest corner of the Alvarado-Niles Road / Osprey Drive intersection could be adversely affected by the project. Because the majority of project-related traffic would occur on weekends, the traffic data used for analysis purposes reflects weekend peak-hour (12:00 p.m. to 1:00 p.m.) traffic conditions. Under existing conditions, the intersections above are characterized as operating at a LOS A with the exception of left-turns made from Osprey Drive onto Alvarado-Niles Road, which experience LOS D conditions during the weekend peak-hour.

In order to determine the project's impact on CO concentrations at local intersections, projected LOS conditions (described in the traffic section) were considered under existing plus project condition. The traffic analysis describes that if the intersection of Alvarado-Niles Road / Osprey Drive were signalized, then it would operate at a LOS C or better. Under existing plus project

conditions, the signalized Paseo Padre Parkway / Isherwood Way intersection would continue to operate at LOS B or better. Because the service level is projected to be LOS C or better, as described above, the project would have a less than significant impact on CO concentrations at those intersections.

Because the LOS at the Alvarado-Niles Road / Osprey Drive intersection is projected to be worse than LOS C under unsignalized conditions under existing plus project conditions, an analysis of CO concentrations is necessary. CO concentrations normally consist of an area-wide background level, with micro-scale peaks superimposed on local sources. The background concentration is a function of area-wide traffic characteristics, topography, and climatology, while the local concentration is a function of traffic characteristics at the point of interest. For this analysis, worst-case estimates of local CO concentrations, determined by CALINE4, were added to the second highest maximum background CO concentrations found in CARB's *Air Quality Data* reports, as reported at the Chapel Way air monitoring station over the past three years (Benson, 1988). These background concentrations were found to be 7.0 ppm and 5.3 ppm for 1-hour and 8-hour concentrations, respectively.

The traffic data used in analyzing CO concentrations reflect 1995 traffic volumes. At project buildout, when intersection impacts would occur, traffic would likely have increased incrementally with population growth or land use development not associated with the project. At project buildout it is also likely that due to increasingly cleaner fuels and other technological advancements, future years would likely have lower ambient background concentrations and lower emission factors as cleaner new vehicles enter the vehicle mix. The traffic analysis demonstrated that without signalization, left-turns made onto Alvarado-Niles Road that operated at an unacceptable LOS F condition. In order to determine the impact on local CO concentrations under these conditions, CALINE4 was run. Table 12 shows that despite projected traffic conditions of LOS F, the addition of project traffic would not result in an exceedance of state standards (20 ppm for 1-hour or 9 ppm averaged over an 8-hour period) and, therefore the project would have a less than significant impact on CO concentrations at local intersections.

Mitigation: None required.

TABLE 12: ESTIMATED CO CONCENTRATIONS AT STUDY INTERSECTIONS, 1995 /a/

Analysis Condition /c/	CO Concentrations (ppm)/b/			
	Alvarado-Niles Road and Osprey Drive		Paseo Padre Pkwy and Isherwood Dr.	
	1-hour	8-hour	1-hour	8-hour
Existing	7.9	5.8	NA	NA
Existing + Project	8.2	6.0	NA	NA

/a/ The analysis was based on traffic data for the year 1995. Traffic at project buildout may change as the result of population growth or other variables. Emission factors in future years are expected to decrease due to cleaner new vehicles entering the vehicle fleet.

/b/ CO concentration estimates were made using CALINE4, developed by Caltrans, based on worst case meteorology (1.0 m/s wind speed, D stability, and 25 degrees sigma theta) and BAAQMD composite emission factors at the weekend peak-hour. Intersections were modeled as at-grade road segments with an average vehicle speed of 16 miles per hour. Eight-hour average estimates were assumed to be 60% of the estimated one-hour value. Background CO concentrations were based on the second highest annual readings over the past three years for which data exists. The local intersection value was added to the following background CO concentrations: 7.0 ppm, one-hour average, and 5.3 ppm, eight-hour average.

NOTE: The state one-hour CO standard is 20 ppm and the state eight-hour standard is nine ppm. NA indicates that either the intersection is projected to operate at a LOS of C or better, so modeling was unnecessary, or that because of the roadway configuration (e.g., cul-de-sacking), project-related traffic would have no effect on the intersection.

SOURCE: Environmental Science Associates

REFERENCES - Air Quality

Association of Bay Area Governments, Bay Area Air Quality Management District, and the Metropolitan Transportation Commission, *Clean Air Plan*, 1994.

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3.7 NOISE

SETTING

Introduction to Noise Principles and Descriptors

Environmental noise is usually measured in A-weighted decibels (dBA).¹ Environmental noise typically fluctuates over time, and different types of noise descriptors are used to account for this variability. Typical noise descriptors include the energy-equivalent noise level (L_{eq}) and the day-night average noise level (L_{dn}).² The L_{dn} is commonly used in establishing noise exposure guidelines for specific land uses. In areas where noise is dominated by traffic, the L_{eq} during the peak-hour is generally equivalent to the L_{dn} at that location. In general, people can perceive a three-decibel difference in noise levels; a difference of 10 dBA is perceived as a doubling of loudness. Stationary sources attenuate (lessen) at a rate of 6 to 9 dBA per doubling of distance. Some representative sounds and sound pressure levels are shown in Figure 5.

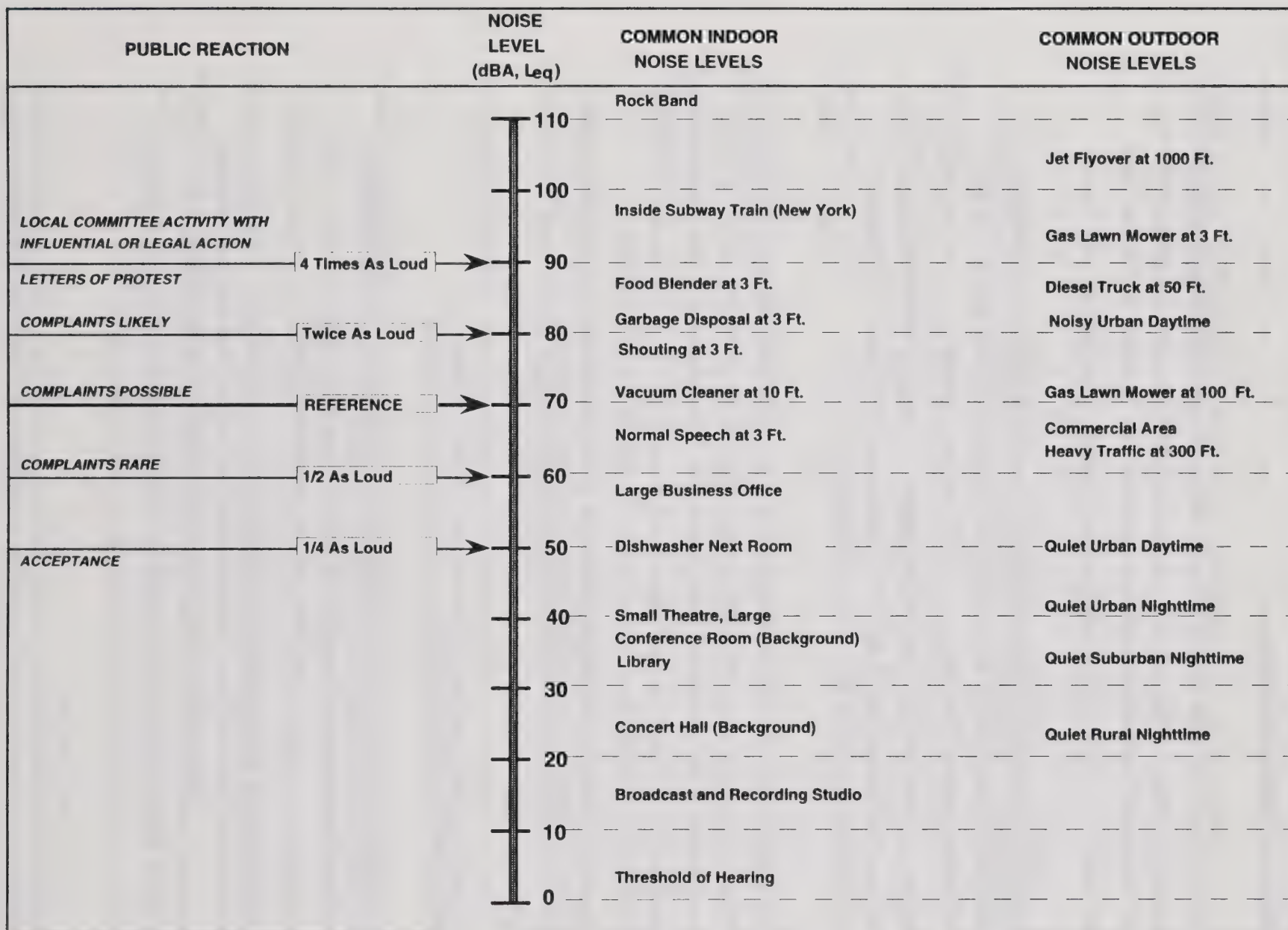
Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others, due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residential areas generally are more sensitive to noise than are commercial and industrial land uses.

The sensitive receptors most affected by the project would be the single family residences located to the northwest, across Isherwood Way, are separated from the site by the width of Isherwood Way and its shoulders, which constitutes approximately 50 feet. There is a concrete sound wall along Isherwood Way, separating the project site from the residences. There are also single family residences to the northeast, across the Union Pacific Railroad tracks. The residences northeast of the site are located along Carnation Way and Montecito Drive, approximately 150 feet from the northern edge of the project site.

¹ A decibel (dB) is a logarithmic unit of sound energy intensity. Sound waves exert a sound pressure (commonly called "sound level"), measured in decibels. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response of the typical human ear at commonly encountered noise levels.

² L_{eq} , the energy equivalent noise level (or "average" noise level), is the equivalent steady-state continuous noise level which, in a stated period of time, contains the same acoustic energy as the time-varying sound level actually measured during the same period. L_{dn} , the day-night average noise level, is a weighted 24-hour average noise level. With the L_{dn} descriptor, noise levels between 10:00 p.m. and 7:00 a.m. are adjusted upward by ten dBA to take into account the greater annoyance of nighttime noise as compared to daytime noise.



SOURCE: Caltrans Transportation Laboratory Noise Manual, 1982; and
Modification by Environmental Science Associates

Quarry Lakes Regional Recreation Area / 950399 ■

Figure 5
Effects of Noise on People

Existing Noise Sources and Levels

Transportation-related noise sources, primarily automobiles and trucks, determine ambient noise levels over portions of the project area. The major transportation noise sources are Isherwood Way, Alvarado-Niles Boulevard, and Paseo Padre Parkway. The noise environment varies considerably over the project site, reflecting the variety and locations of the noise sources.

Two noise measurements were conducted on a weekend in the project area to more fully characterize the ambient noise environment. A 24-hour measurement was taken on the northeastern perimeter of the project site. This location is approximately 1,500 feet from the proposed beach area and 2,000 feet from the marina in the northern Recreational Unit. The 24-hour L_{dn} at this location was 62 dBA. The principal sources of noise at this location were BART cars and trains along the Union Pacific Railroad.

A short-term measurement was taken at the intersection of Isherwood Way and Barnard Drive during a weekend afternoon, when project-related traffic would be expected to have an impact. The measurement was taken 60 feet from the centerline of Isherwood Way. This location is approximately 1,200 feet from the proposed beach area and 900 feet from the marina. The noise measurement at this location was fifteen minutes in duration, and was conducted at approximately 5:00 p.m. on a Saturday afternoon. The noise level was averaged over 5 minute intervals. The noise level during the measurement period was 63 to 64 dBA, L_{eq} . The primary source of noise at this location was automobile traffic along Isherwood Way³.

Noise Regulations, Plans and Policies

The *Health and Safety Element* of the Fremont General Plan contains noise compatibility standards which can be used to evaluate the suitability of a project (City of Fremont, 1991). These standards are summarized in Table 13. The City of Fremont also has a Noise Ordinance which stipulates, at the property line nearest the source of a suspected noise violation, the maximum sound generated by any user shall not exceed 60 dBA when users are adjacent or contiguous to residential, park, or institutional uses. Excluded from these standards are occasional sounds generated by the movement of railroad equipment, temporary construction activities, or warning devices (City of Fremont, Fremont General Code).

³ Although measurements were made to characterize existing noise levels in the project area, the analysis was made using noise levels estimated from the Federal Highway Administration's Traffic Noise Prediction Model, with current and future roadway volume projections.

TABLE 13: LAND USE COMPATIBILITY FOR COMMUNITY EXTERIOR NOISE ENVIRONMENTS

Land Use	<u>Community Noise Exposure, dBA or CNEL</u>			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential	up to 60	N/A	60 to 75	above 75
Schools, Hospitals	up to 60	60 to 70	70 to 80	above 80
Playgrounds, Neighborhood Parks	up to 70	60 to 70	70 to 75	above 75
Office Buildings; Commercial Business	up to 65	65 to 77	above 75	N/A
Industrial, Manufacturing	up to 70	70 to 80	above 75	N/A

Clearly Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable: New construction or development should generally not be undertaken.

SOURCE: City of Fremont, Health and Safety Element of the General Plan, 1991.

Significance Criteria

Noise impacts are determined on the basis of the absolute increase in noise levels and on the relationship between the changed noise environment and local land use noise-compatibility guidelines. A project would have a significant adverse impact on the environment if it substantially increased the ambient noise levels for adjoining areas, unless the area under consideration was already noise-impacted. When an area is already noise impacted, any increase in noise level is considered significant. For the purposes of this EIR, an increase in the L_{dn} of three or more decibels is considered to be a significant impact. Three decibels is the level at which people can generally perceive a change in loudness.

Noise impacts from a project can be categorized as those resulting from construction activities or those resulting from operational activities. Construction noise would have a short-term effect, while operational noise, primarily from motor vehicle traffic, would continue throughout the lifetime of the project.

IMPACTS AND MITIGATION MEASURES

Construction Noise

Impact: Construction of the project would increase noise levels temporarily in the project vicinity. (Less than Significant)

Construction of the project would generate high levels of noise on and adjacent to individual construction sites. Construction noise would fluctuate depending on construction phase, equipment type and duration of use, distance between noise source and receptor, and presence or absence of barriers between noise source and receptor.

Table 14 shows typical noise levels generated during different phases of construction. Noise levels would decrease by six to nine dBA with each doubling of distance from a construction site (e.g. noise levels from excavation would be about 80 to 83 dBA at 100 feet from the site, and about 71 to 77 dBA at 200 feet from the site). For residences near the construction site, interior noise levels would be about 10 dBA (open windows) to 20 dBA (closed windows) less than exterior noise levels (Cornett, 1979).

TABLE 14: TYPICAL CONSTRUCTION NOISE LEVELS

<u>Construction Phase</u>	<u>Noise Level (dBA, L_{eq})/a/</u>
Ground Clearing	84
Excavation	89

/a/ Average noise levels 50 feet from the source.

SOURCE: Bolt, Beranek, and Newman, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, prepared for U.S. Environmental Protection Agency, 1971.

Construction noise from grading of the parking lots or other park facilities would be audible from the homes along Isherwood Way and the homes along Carnation Way. The proposed parking lots are directly across Isherwood Way from the northernmost homes along Isherwood Way, at approximately 100 feet. Assuming an attenuation of 6 to 9 dBA per doubling of distance, construction noise levels at the property lines of homes along Isherwood Way would be 74 to 83 dBA. Existing concrete walls and vegetation along Isherwood Way would further attenuate the noise level. The noise level would be a temporary impact, occurring only during the grading and paving of the parking lots.

While construction noise levels may be higher than the General Plan *Health and Safety Element* would allow at the property line (60 dBA), construction noise is excluded from standards contained in the *City of Fremont Noise Ordinance* and, therefore, would not cause a significant impact.

Mitigation: While the project is not expected to have noise impacts to existing residential receptors, use of heavy equipment could be restricted to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 9:00 a.m. to 6:00 p.m., Saturday and Sunday.

Long-Term Traffic Noise Impacts

Impact: Offsite roadway volumes would increase which would increase the noise level to nearby residences (Less than Significant)

Over the long-term, the project would affect ambient noise levels primarily by increasing traffic volumes on the road network in and outside of the project area. Project-generated traffic would increase noise levels along Isherwood Way, Alvarado-Niles Road, and Paseo Padre Parkway.

Currently, traffic along Isherwood Way consists of two groups: traffic to the Mission Lakes subdivision north of Isherwood, and traffic using Isherwood as a connector between Paseo Padre Parkway and Alvarado-Niles Road. Subdivision traffic creates about 85 trips during the weekend peak hour, and through traffic creates about 520 trips. This results in a total of about 605 trips during the weekend peak hour.

With implementation of the project, traffic along Isherwood Way would consist of three groups: Mission Lakes subdivision traffic, traffic using Isherwood Way as a connector between Paseo Padre Parkway and Alvarado-Niles Road, and project-related traffic. It is anticipated that approximately 50 percent of project-related traffic will be coming from Paseo Padre Parkway and approximately 50 percent from Alvarado-Niles Road. Therefore, approximately half of the project-related trips will pass the residences along Isherwood Way. Weekend peak hour traffic to the subdivision and through traffic would remain at about 605 trips, and project-related traffic would add about 705 trips. This would result in a total of about 1,310 trips during the weekend peak hour.

For the analysis, the FHWA noise model was used to estimate noise level along the roadway. The posted speed limit of 35 miles per hour was used. The traffic mix used in the model consisted of autos and light trucks. Heavy trucks were not used in the model, since Isherwood Way has a posted weight limit of five tons or less. The model calculated that the noise level 50 feet from the centerline of the road would increase from 63 dBA to 67 dBA during the peak hour. This four-dBA increase during the peak hour would be barely noticeable. However, daytime is the least noise-sensitive time of the day, and the project will not generate traffic outside of daytime hours. As a result, the L_{dn} would increase by less than 3 dBA.

Mitigation: None required.

Impact: Noise from recreational activities would affect nearby sensitive receptors. (Less than Significant)

Activities in Quarry Lakes Regional Recreation Area may include swimming, windsurfing, non-fuel based boating, fishing, camping, bicycling, and horseback riding. Noise related with such

activities could potentially affect sensitive receptors at the northwestern and northeastern borders of the site.

Noise measurements from a similar facility were used to determine the potential noise impacts from the project. For this analysis, noise measurements were used from Temescal Regional Recreational Area in Oakland, California. The ambient noise level at three locations in the Lake Temescal area ranged from 59 to 63 dBA, L_{eq} . The measurements were made 50 to 100 feet from the noise sources.

The noise level at Quarry Lakes would be approximately the same, since the same types of activities that occur at Lake Temescal would occur at Quarry Lakes. At the time of publication of this EIR, the exact location of the park structures and facilities is not known. However, the structures will be at least 100 feet from existing residences, and will likely be much further away. Assuming the noise levels encountered at this park will be approximately the same as Temescal, the noise levels at the nearest residences would be 60 dBA or lower. This is lower than the current ambient noise levels. As a result, noise from project facilities will result in a less than significant impact.

Mitigation: None required.

REFERENCES - Noise

Bolt, Beranek, and Newman, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, prepared for U.S. Environmental Protection Agency, 1971.

City of Fremont, *Fremont General Code*, Section 8-21904, Performance Standards.

City of Fremont, *Health and Safety Element of the City of Fremont General Plan*, 1991.

Cornett, C. Lawrence, and Charles E. Hina, *Methods for Predicting Noise and Vibration Impacts*, Department of Transportation, Transportation Systems Center, 1979.

Environmental Science Associates (ESA), 1993. *Temescal Regional Recreational Area, Environmental Impact Report*.

3.8 PUBLIC SERVICES AND UTILITIES

SETTING

Police Protection Services

EBRPD Department of Public Safety

In accordance with its Operational Policies, the EBRPD is responsible for the safety and protection of parkland users and staff (EBRPD Master Plan 1989). This public safety responsibility includes police protection services, which are provided by the District's Department of Public Safety. Ordinance 38, first adopted by the EBRPD in 1964 pursuant to Section 5541, 5559 and 5560 of the Public Resources Code of California, establishes regulations for general park uses, such as camping, swimming, assembly, use of fire, alcohol and firearms. This Ordinance applies to all District Parklands.

The EBRPD Department of Public Safety operates with a total of 53 sworn officers and 5 clerical staff members (4 full-time positions and one half-time). In addition, there are 4 supervisors and 11 dispatchers, all of whom are civilians, 2 records clerks, and 1 evidence clerk. There are 3 officer vacancies and 1 helicopter pilot vacancy; however, since the department is currently in the process of establishing eligibility lists, these four vacancies are expected to be filled prior to Park opening (Lapera 1995).

The Department of Public Safety is partitioned into three distinctive divisions: Administrative Services Division; Special Operations Division; and Field Operations Division. These three divisions are further subdivided into specific units. The Administrative Services Division is comprised of four units: Personnel Unit; Training Unit; Communications and Evidence Record Unit; and Civilian Communication Management Unit. The Special Operations Division is comprised of three units: Detective Unit; Special Enforcement Unit; and Helicopter Unit. Finally, the Field Operations Division is comprised of one unit which is responsible for setting standard deployment strategies in the assignment of 24-hours per day service coverage throughout the year for day, swing, and graveyard shifts (Lapera).

The headquarters station for the EBRPD's Department of Public Safety is located at 17930 Lake Chabot Road in Castro Valley. All operations are solely overseen by the this station. Thus, the headquarters station would be in charge of providing police protection services for the Quarry

Lakes Regional Recreation Area (Lapera 1995). 911 calls placed within District Parklands are handled by EBRPD Dispatch for transmittal to staff patrolling the vicinity.

The project site has been patrolled since the District first purchased land parcels on the site (Lapera 1995). After the gravel operations ceased and the site was fenced-off to prevent public access, Department of Public Safety officers have routinely patrolled it with the aid of patrol cars, motorcycles, and helicopters to discourage use. Although the site has been officially closed to the public, there have been repeated trespassing incidents which have led to routine levels of patrolling at the Quarry Lakes site. Given that trespassing incidences have occurred mainly during daylight and early evening hours on weekends--and to a lesser extent on weekdays--there has been a corresponding effort to patrol the site accordingly. Everyday of the year, 24 hours per day, there is always one officer assigned to the geographical area that encompasses the Quarry Lakes site (Lapera 1995).

There is an operating mutual agreement, or formal agreement, between EBRPD and the Fremont Police and City of Union City Police Departments (Lapera 1995). In the event that the EBRPD's Public Safety Department were unable to respond to a given call from the park site, either the Fremont Police Department or the City of Union City Police Department could respond to the call. The actual response time would depend upon the proximity and availability of the officers in the sector of the call.

In addition to the formal agreement described above, there is also an informal agreement between EBRPD and the Fremont Police and City of Union City Police Departments (Lapera 1995). This agreement holds that either the Fremont Police or the City of Union City Police Departments could respond to a call directed to the EBRPD's Department of Public Safety. Once the call is responded to by the first available agency, the case may be handled and/or followed up by either of the other two agencies.

Experience gained from management of other parks with large parking capacity--similar to that to be achieved at the Quarry Lakes Regional Recreation Area at project build-out--has shown that the focus of the problems handled by the Department of Public Safety has been directly related to management of Park traffic (Lapera 1995).

Fremont Police Department

The Fremont police station is located at 39710 Civic Center Drive, at the corner of Stevenson Boulevard about 3 miles southeast from the project site. The department has a total of 190 sworn police officer positions, of which 183 are filled and 7 are vacant (Moore 1995). Additionally, the department has a total of 104 non-sworn employee positions, of which 102 are filled and 2 are vacant (Moore 1995). The response time goals for the department are as follows: 5 minutes for priority 1 calls, 15 minutes for priority 2 calls, and 45 minutes for priority 3 calls (Hunt 1995).

In an effort to better serve the City of Fremont, the department has divided Fremont into six patrolling sectors. The Quarry Lakes area would be served by both sectors 1 and 3 (Hunt 1995). Time required to respond to District requests for support would be directly related to both the proximity and the availability of the officers in the sectors where the project site is located at the time of the call. The Quarry Lakes area has not been patrolled by the Fremont Police Department in the past while the site has been closed to public access. The perimeter of the site is currently patrolled on a daily basis.

IMPACTS AND MITIGATION MEASURES

Significance Criteria

According to Appendix G of the CEQA *Guidelines*, a project would have a significant impact on the environment if it will (1) use fuel, water, or energy in a wasteful manner; (2) extend a sewer trunk line with capacity to serve a new development; (3) create a potential public health hazard, or involve the use, production, or disposal of materials which pose a hazard to people or animal or plant populations in the area affected; or (4) interfere with emergency response plans or emergency evacuation plans.

Additionally, Appendix I of the CEQA *Guidelines* states that a project would have a significant impact on the environment if it will have an effect upon, or result in a need for new or altered governmental services pertaining to fire protection, police protection, schools, parks or other recreational facilities, maintenance of public facilities, including roads, or any other government services.

Impact: As a result of the introduction of the public into the site, the project would increase the demand for security and police protection services. This would be considered a potentially significant impact, unless mitigated.

The proposed project would introduce public access to the site. In addition, it would improve trail access, thus facilitating usage, provide two parking lots, which would accommodate up to 1,500 vehicles at project build-out, and provide an array of opportunities for recreational activities. As a result, the introduction of a additional people and vehicles into the site could cause a corresponding increase in the need for additional police protection services. The introduction of additional people and vehicles to the area could also render deficient or inadequate local emergency response planning.

Traffic congestion, particularly as it relates to potential impedance to traffic flow on Isherwood Way / Quarry Lakes Drive, would be an issue of concern for provision of public services, specifically police personnel. During peak periods of arriving park patrons, primarily on summer weekend days, queues of vehicles would develop from the park entrance kiosk back towards the Isherwood / Quarry Lakes roadway. The length of the queue could spill onto the public roadway and could block travel lanes used by non-park vehicles traveling past the park entrance. The resulting congestion could result in increased conflicts between the competing traffic streams (i.e., park and non-park drivers). (See Traffic and Circulation for further discussion of queuing at the park entrance.)

Because the Fremont Police Department is currently understaffed and service demand already exceeds the capability of the department to provide adequate services in a timely fashion, the impact of project implementation would be potentially significant, unless mitigated.

Implementation of the following mitigation measures (and mitigation measures included in Section 3.5, Traffic and Circulation) would reduce all potentially significant impacts to less than significant levels.

Mitigations:

- The proposed Quarry Lakes Regional Recreation Area would be designed as a Class 1 facility, that is, at build-out, it would require the presence of one full-time officer at all times of operation on weekends.
- Park operation will adhere to all regulations established in Ordinance 38, specifically regarding: clearly designating parking areas; maintaining a primarily alcohol-free park; and closing the park when the parking lot has reached capacity.
- The District would develop a Park Emergency Services Plan, to include procedures for response in common disasters. Coordinate Park Emergency Services Plan with local emergency services plans.

REFERENCES - Public Services and Utilities

East Bay Regional Park District, *EBRPD Master Plan*, 1989, as amended.

Hunt, Ronald, Patrol Captain, Fremont Police Department, telephone communication, November 21, 1995.

Moore, Marilyn, Senior Clerk, Fremont Police Department, telephone communication, November 21, 1995.

Lapera, Norman, Captain, Field Operations Commander, EBRPD Public Safety Department, telephone communication, November 28, 1995.

4.0 IMPACT OVERVIEW

4.1 CUMULATIVE EFFECTS

Cumulative impacts refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The CEQA *Guidelines* offers two means of discussing potential contributors to cumulative impacts: (1) by providing a list of past, present and reasonably foreseeable projects which could contribute to cumulative impacts, or (2) by summarizing projections contained in an adopted plans that are designed to evaluate regional conditions (Section 15130). The cumulative impacts analyses in this EIR are made on the basis of both list-based past, present, and reasonably foreseeable future projects and projected growth rates in planning documents. As the impacts for this project are quite focused and limited, there are very few projects whose impacts could be considered related and/or cumulative. Cumulative development in the vicinity of the proposed project include:

- *ACWD's Quarry Pits Rehabilitation Project*. The Quarry Pits project, discussed elsewhere in this EIR, would support and be compatible with EBRPD's proposed Land Use Development Plan. That project would be concluded prior to commencement of the Land Use Development Plan; therefore, no cumulative impacts would result.
- *Decoto Industrial Park Study Area (DIPSA) Specific Plan (Union City)*. The City of Union City's Decoto Industrial Park Study Area (DIPSA Specific Plan) amendment adopted in June 1995, has designated the northwest area of the Alameda Quarries Regional Recreation Area as R3-6 (Residential, 3 to 6 Units per Acre). The proposed project may include establishing an access corridor to the park along a stretch of Quarry Lakes Drive within this zoned area (refer to EIR Sections 3.5, Traffic and Transportation, and 3.7, Noise).
- *Route 84 Relocation Project*. Caltrans is proposing to address current operating deficiencies in the Route 84 service area by realigning the roadway. Caltrans is studying six options for realigning Route 84, each of which creates particular opportunities and/or constraints for project site access options. The six alternatives under study by Caltrans for the proposed relocation of SR 84 (Caltrans, 1995b), are as follows:
 1. No-Build Alternative
 2. Transportation Systems Management (TSM) Alternative
 3. Existing Route 84 Upgrade Alternative
 4. Historic Parkway Alternative
 5. Decoto Parkway/Widening Alternative

6. Industrial Expressway Alternative

The alignment alternative that would most directly affect traffic access to the project site is the Historic Parkway Alternative. Under that alternative, a new median-divided parkway would be constructed with six lanes from I-880 to Paseo Padre Parkway and four lanes east of Paseo Padre Parkway. The existing I-880 / Decoto Road interchange would be improved by widening the Decoto Road overcrossing to provide a fourth westbound lane and each of the four I-880 on-ramps to include two lanes (one mixed flow and one High-Occupancy Vehicle [HOV] flow). Major at-grade signalized intersections along the Historic Parkway are with Decoto Road, realigned Cabrillo Drive, Fremont Boulevard, Paseo Padre Parkway, Alvarado-Niles Road and Mission Boulevard. Grade separations would be constructed at railroads. A continuous hike/bike trail would be constructed within available right-of-way. A design option under consideration would provide an additional interchange at Fremont Boulevard and construct a grade separation for the relocated Cabrillo Drive. Under the design option, the Historic Parkway would be a six-lane, median-divided parkway throughout.

- A description of park site access under five Historic Parkway Alternative scenarios is presented below.
 1. If the Historic Parkway Alternative **were not chosen to be constructed**, then site access would be provided on Isherwood Way from Paseo Padre Parkway, and on Quarry Lakes Drive from Alvarado-Niles Road via Osprey Drive as analyzed in this EIR.
 2. If construction of the Historic Parkway Alternative **were completed prior to opening of the project** to public use, then site access could be provided either: (A) on only existing Quarry Lakes Drive from SR 84, or (B) on Isherwood Way from Paseo Padre Parkway and on existing Quarry Lakes Drive from SR 84, depending on the possible construction, by Caltrans and the Cities of Fremont and Union City, of cul-de-sacs at the end of Isherwood Way in Fremont and Quarry Lakes Drive in Union City, in proximity to the City boundary.
 3. If construction of the Historic Parkway Alternative **were completed prior to opening of the project** to public use, then site access could be provided either: (A) on only a relocated (by Caltrans) Quarry Lakes Drive from Alvarado-Niles Road, or (B) on Isherwood Way from Paseo Padre Parkway and on a relocated (by Caltrans) Quarry Lakes Drive from Alvarado-Niles Road, depending on the possible construction, by Caltrans and the Cities of Fremont and Union City, of cul-de-sacs at the end of Isherwood Way in Fremont and Quarry Lakes Drive in Union City, in proximity to the City boundary.
 4. If construction of the Historic Parkway Alternative **were not completed prior to opening of the project** to public use, blocking access to Osprey Drive from Alvarado-Niles Road, then site access would be provided on Isherwood Way from Paseo Padre Parkway, and on Fox Avenue (with an easement granted by the BART District, which has jurisdiction over Fox Avenue) from Alvarado-Niles Road, depending on the possible construction, by Caltrans and the Cities of Fremont and Union City, of cul-de-sacs at the end of Isherwood Way in Fremont and Quarry Lakes Drive in Union City, in proximity to the City boundary.

5. If construction of the Historic Parkway Alternative **prohibited use of Alvarado-Niles Road, and Fox Avenue was not available** for public use, then site access would be provided solely on Isherwood Way from Paseo Padre Parkway.

Traffic forecasts used in this EIR are from the *Route 84 Realignment Project - Final Traffic Operations Report* (Caltrans, April 1995b), which in turn derive from future land use plans adopted by cities in the Route 84 study area.

Given the nature of the proposed project, no cumulative effects in the areas of land use and planning would be anticipated. The most readily observable environmental impact resulting from cumulative development in the area would relate to traffic and transportation systems. The cumulative context of the projected increase in vehicle trips to the Recreation Area have been considered in the project analyses, which indicate that project-plus-cumulative traffic requires the installation of a traffic signal on Alvarado-Niles Road at access road serving the park (a significant, mitigable impact). These impacts are discussed in more detail in Chapter 3.0. No other significant cumulative impacts have been identified.

4.2 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable environmental impacts were found associated with the Quarry Lakes Regional Recreation Area Land Use Development Plan.

4.3 EFFECTS FOUND NOT TO BE SIGNIFICANT

An Initial Study was prepared for the project pursuant to CEQA to determine whether an EIR should be prepared and, if so, which potential environmental effects of the project might be significant so that they could be fully evaluated in the EIR. In keeping with the purpose of an Initial Study to focus out of an EIR those topic areas for which it is determined that impacts would not be significant, certain effects of the proposed project were found to result in less-than-significant environmental impacts and are, therefore, not discussed in detail in this EIR.

These areas along with the rationale for these conclusions, are noted in Appendix B, Notice of Preparation and Initial Study, and listed below.

- Land Use and Planning
- Population and Housing
- Biological Resources
- Energy and Mineral Resources
- Hazards
- Utilities and Service Systems
- Aesthetics
- Cultural Resources
- Recreation

4.4 GROWTH INDUCEMENT

Growth inducement concerns are related to those characteristics of a project that would foster or encourage population and/or economic growth. The proposed Quarry Lakes Regional Recreation Area Land Use Development Plan establish as criteria for developing the area as a park. The project does not include any development of new housing or infrastructure; therefore, the project would not have any growth-inducing effects.

4.5 ALTERNATIVES CONSIDERED

Under the no project alternative, the LUDP for the Alameda Creek Quarries Regional Recreation Area would not be implemented. The site would continue to be used by ACWD for groundwater recharge purposes, although neither the recreational opportunities nor the park infrastructure that would make them possible would be provided. This alternative would avoid some those impacts described as mitigatable in this EIR, however the alternative would result in the continual need for parks and recreational opportunities in the City of Fremont, a need that has been mentioned both in the *City of Fremont General Plan* and the *Centerville Specific Plan*. This alternative is not proposed because of two reasons:(1) it perpetuates the demand for parks and (2) it does not meet the objectives of the proposed project.

5.0 REPORT PREPARATION

This Environmental Impact Report was prepared for the East Bay Regional Park District by Environmental Science Associates, Inc., Gary Oates, President. The report was prepared under the direction of Darcey Rosenblatt, Project Manager; Karla Vasconcellos; Deputy Project Manager; in conjunction with District staff Maxine Turner and Jill Singleton. Other ESA participants included Jack Hutchison, Nanette Sartoris, Erik Brown, Trish Tatarian, Liz Persons, Amy Joseph and Yuki Kawaguchi, Leslie Moulton, Paul Mitchell, Ken Gracey, Ron Teitel and Lisa Bautista.

PERSONS AND AGENCIES CONTACTED

Lou Gigliati, Water Parks Manager, EBRPD

Ronald Hunt, Patrol Captain, Fremont Police Department

Norman Lapera, Captain, Field Operations Commander, EBRPD Public Safety Department

Marilyn Moore, Senior Clerk, Fremont Police Department

Steve Peterson, Alameda County Water District

APPENDIX A: INITIAL STUDY

REGIONAL PARKS

EAST BAY REGIONAL PARK DISTRICT

BOARD OF DIRECTORS

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ENVIRONMENTAL IMPACT REPORT FOR EAST BAY REGIONAL PARK DISTRICT ALAMEDA CREEK QUARRIES REGIONAL RECREATION AREA LAND USE-DEVELOPMENT PLAN

NOTICE OF PREPARATION

East Bay Regional Park District (EBRPD), as lead agency, will prepare an Environmental Impact Report (EIR) for their Alameda Creek Quarries Regional Recreation Area Land Use-Development Plan. The project description and initial study are attached. Please provide your agency's views as to the scope and content of the environmental issues related to the proposed project, in compliance with the California Environmental Quality Act (CEQA).

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice. Please send your response, including the name of a contact person in your agency, to EBRPD at the address shown below:

Date: 10/31/95

Maxine Turner

Maxine Turner
Chief of Planning/Stewardship
East Bay Regional Park District
P.O. Box 5381
Oakland, CA 94605-0381
510/ 635-0135

**INITIAL STUDY
ENVIRONMENTAL CHECKLIST FORM**

1. Project Title: Alameda Creek Quarries Regional Recreation Area Land Use-Development Plan
2. Lead Agency Name and Address: East Bay Regional Park District
2950 Peralta Oaks Court
Oakland, California 94805
3. Contact Person and Phone Number: Jill Singleton Tel. #(510) 635-0138 x2325
4. Project Location: The project site is located on the east side of the San Francisco Bay, adjacent to the northern Niles District in the City of Fremont in Alameda County. The project site is bordered by the Alameda Creek Flood Control Channel on both the south and southwest, Isherwood Way and Quarry Lakes Drive on the west, Decoto Road and Alvarado Niles Road/Niles Boulevard on the north, and the Bay Area Rapid Transit District and Union Pacific Railroad tracks on the east.
5. Project Sponsor's Name and Address: East Bay Regional Park District
P.O. Box 5381
Oakland, California 94605-0381
6. General Plan Designation: Open Space
7. Zoning: Quarry Pits Area: O-S with a designation of institutional open space.
Alameda Creek Area: O-S(F), Open Space with a Flood Combining District overlay (areas within the 100-year flood boundary).
8. The project is the Land Use Development Plan of the East Bay Regional Park District which establishes appropriate park zoning and land use criteria for park development for the Alameda Creek Quarries Regional Recreation Area. The project site for the LUDP is part of a joint use agreement between the EBRPD and ACWD for the development of the former gravel quarries. The ACWD will soon begin a project to reclaim and grade the project site during 1995-1997 for groundwater recharge purposes. This project was the subject of a recently completed Environmental Impact Report (EIR) (State Clearinghouse No. 94093014).

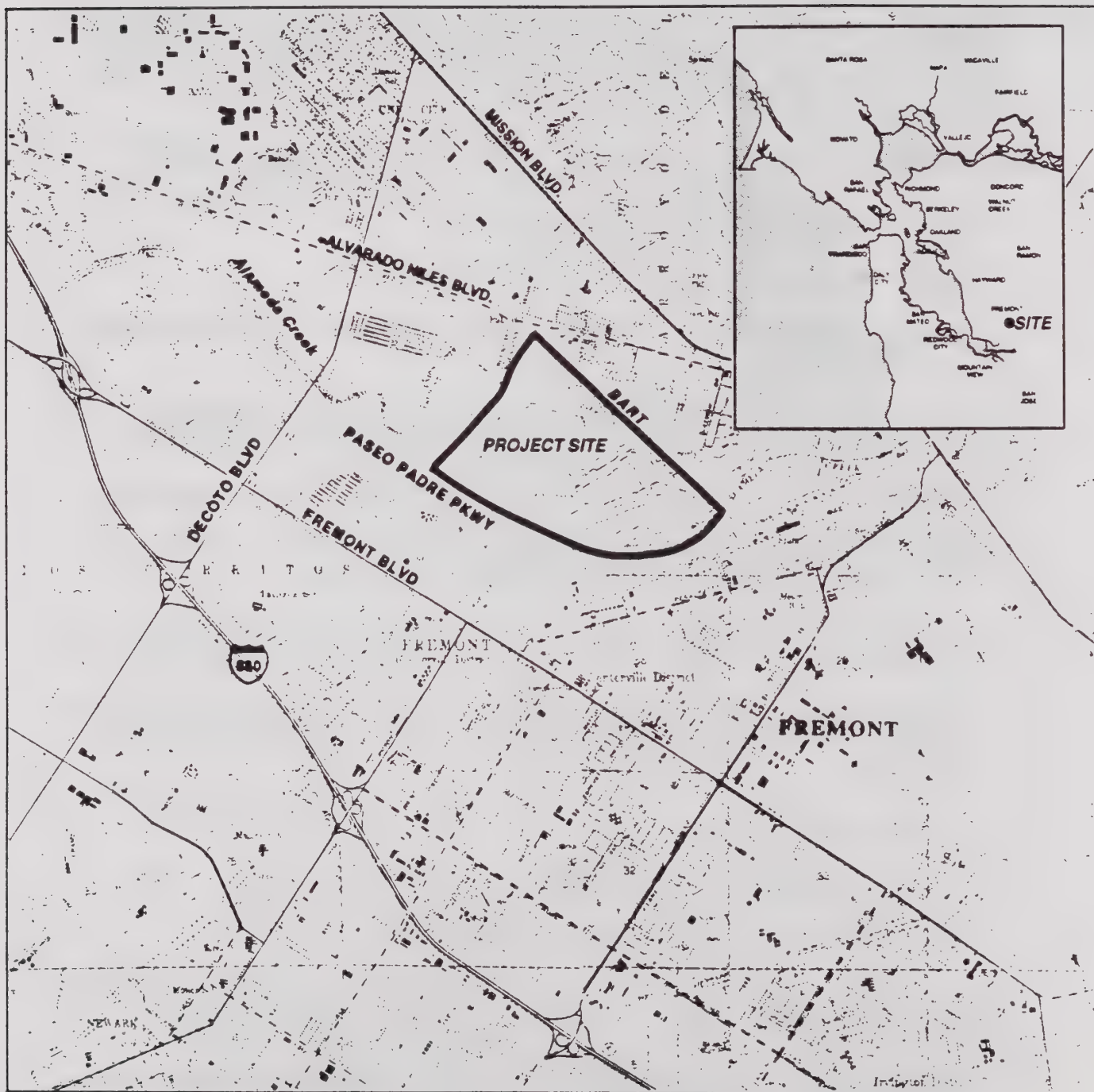
The LUDP designates two distinctive parkland units for the project area, a "Recreation Unit" and a "Natural Unit" (see Figure 1 and 2). The Recreation Unit consists of approximately 300 acres, of which over half are water surfaces and levee sides. This unit comprises the western two-thirds of the Alameda Creek Quarries Regional Recreation Area. Elements of the Recreation Unit would include, but not be limited to:

- a preferred main park entrance via Quarry Lakes Drive from Alvarado-Niles Boulevard;
- secondary vehicular entry points (i.e., via Fox Avenue);
- on-site parking areas (1,500 vehicles projected at park build-out);
- alternative emergency and service access (i.e., via Fox Avenue, Isherwood Way and Alameda Creek Regional Trail);
- recreational opportunities for hiking; bicycling; picnicking; seasonal swimming; non-fuel based boating; windsurfing; horseback riding; and fishing from pier, boat, and shoreline;
- opportunities for group-oriented activities such as group picnics, day and overnight camps;
- park structures and facilities such as picnic tables, shade shelters, and barbecue grills, bait shop, equipment rental and storage, service yard and security residence;
- park facilities related to fishing, boating and boat launching, windsurfing, swimming, bicycling and food services;
- buildings for park uses not exceeding thirty (30) feet in height; building uses to be combined as appropriate. Buildings will be designed in accordance with the Americans with Disabilities Act (ADA).
- restrooms connected to existing sewer lines;
- 1,000 feet of beach frontage for swimming; and
- a loop trail system that connects to regional and local trails.

The Natural Unit consists of over 100 acres, comprising the eastern one-third of the Alameda Creek Quarries Regional Recreation Area. Elements of the Natural Unit would include, but not be limited to:

- a coordinated effort with Alameda County Water District (ACWD) to protect, enhance and maintain wildlife habitat and populations;
- interpretive signage; and
- unpaved, multi-purpose trail loops connecting to the Recreation Unit and the Regional Trail.

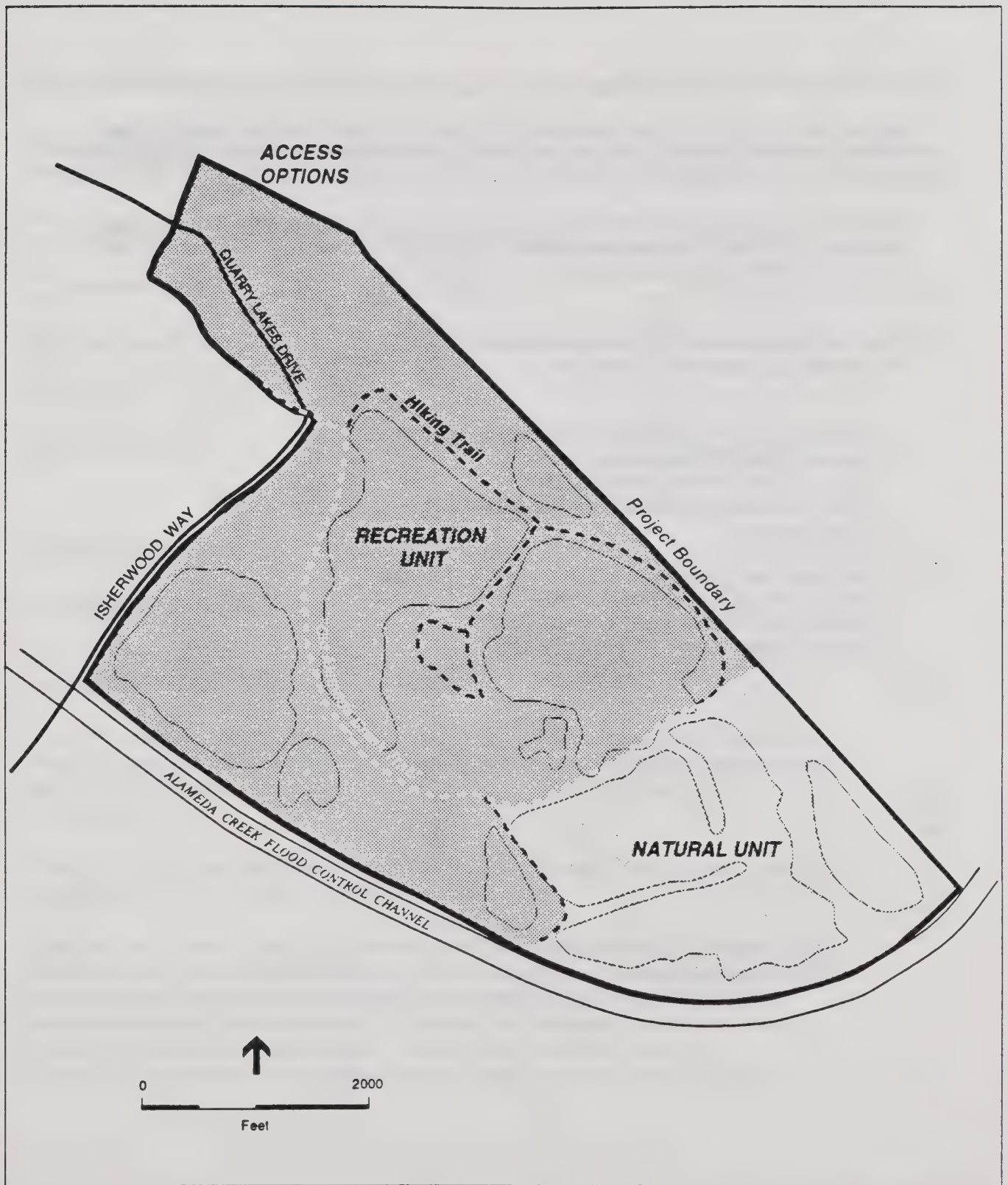
The first elements of the Alameda Creek Regional Recreation Area west of the Bay Area Regional Transit District (BART) alignment are scheduled to be implemented in 1998.



SOURCE: Environmental Science Associates

Alameda Quarries Park / 950399 ■

Figure 1
Site Location



SOURCE: Environmental Science Associates

Alameda Quarries Park / 950399 ■

Figure 2
Alameda Creek Quarries
Regional Recreation Area
Park Unit Designations

9. Surrounding Land Uses and Setting:

Adjacent land uses include open space and public roads to the northwest, the Alameda Creek Flood Control Channel and regional trail to south and BART and Western Railroad alignments to the east.

Land uses in the project site vicinity include single family residential to the west and northeast, agricultural to the northwest, commercial/retail, single family residential, and some apartment buildings and condominiums to both the south and southwest.

10. Other public agencies whose approval is required
(e.g., permits, or participation agreement)

- Alameda County Flood Control and Water Conservation District
- Alameda County Transportation Authority
- Alameda County Water District (ACWD)
- California Department of Fish and Game (CDFG)
- City of Fremont
- City of Union City
- California State Department of Transportation (Caltrans)
- Bay Area Rapid Transit District (BARTD)
- California Division of Safety of Dams (DSOD)
- Regional Water Quality Control Board (RWQCB)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|--|--|
| ☐ Land Use and Planning | ☒ Transportation/Circulation | ☒ Public Services |
| ☐ Population and Housing | ☐ Biological Resources | ☐ Utilities and Service Systems |
| ☒ Geological Problems | ☐ Energy and Mineral Resources | ☐ Aesthetics |
| ☒ Water | ☐ Hazards | ☐ Cultural Resources |
| ☒ Air Quality | ☒ Noise | ☐ Recreation |
| | ☒ Mandatory Findings of Significance | |

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION will be prepared.

☐

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☒

I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐

I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.



Maxine Turner
Signature

10/31/95
Date

MAXINE TURNER
Printed Name

EBRPD
For

<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
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I. LAND USE AND PLANNING. Would the proposal:

- a) Conflict with general plan designation or zoning? (sources): 1, 2, 3, 4, 5, and 6. ☐ ☐ ☒ ☐

The 1991 Fremont General Plan has designated the land use of the site area as Open Space. The Quarry Pits Area has a zoning designation of O-S (Open Space). The zoning designation for the Alameda Creek Area, which is owned by Alameda County Flood Control, is O-S(F) [Open Space with a Flood Combining District overlay (areas within the 100-year flood boundary)]. The proposed project is consistent with the land use and zoning designations at the project site. Additionally, as stated in Fremont's General Plan, the Land Use Plan for the Centerville Area (where site is located) reflects the City's strong support for the development of the proposed LUDP for the Alameda Creek Quarries Regional Recreational Area.

The City of Union City's Decoto Industrial Park Study Area (DIPSA Specific Plan) amendment adopted in June 1995, under Resolution Number 8608-95 has designated the northwest area of the site as R3-6 (Residential, 3 to 6 Units per Acre). Additionally, this plan has zoned this area as RS6000 (Single Family Residential). Establishing an access corridor to the park along a stretch of Quarry Lakes Drive within this zoned area may require additional mitigation considerations in the event that residential housing is located in this area. Although impacts are not expected to be significant, proposed mitigation will be described in the EIR.

- 1) City of Fremont, *Fremont General Plan*, May 1991.
- 2) City of Fremont, *Zoning Map*, May 1994, as amended.
- 3) City of Union City, *Decoto Industrial Park Study Area (DIPSA Specific Plan)*, amended June 1995.
- 4) City of Fremont, *Centerville Specific Plan*, September 1993.
- 5) City of Fremont, *Proposed Rezonings Related to Centerville Specific Plan*, 1993, as amended.
- 6) City of Fremont, *Proposed General Plan Amendments Related to the Centerville Specific Plan*, as amended.

- b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project? ☐ ☐ ☐ ☒

The primary purpose of the pits is to recharge the groundwater aquifer underlying Fremont, an operation which has been conducted by the ACWD since 1919. Any potential conflict between ACWD and EBRPD regarding adopted environmental plans and policies would be alleviated by EBRPD's willingness to both cooperate and coordinate with ACWD to sensibly accommodate the joint use of the site for recreation, wildlife preservation, and groundwater replenishment.

EBRPD is committed to both cooperate and assist ACWD in all of its water management programs. The District would periodically monitor water quality at Alameda Creek Quarries in coordination with ACWD, the Regional Water Quality Control Board (RWQCB), and the Alameda County Health Department. Furthermore, EBRPD would ensure that quality, and clarity of water in the north lake

<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
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would be maintained at satisfactory levels to sustain seasonal swimming activities. Finally, the District would facilitate inter-agency efforts to manage non-point source pollution in the Alameda Creek watershed.

- c) Be incompatible with existing land use in the vicinity? ☐ ☐ ☐ ☒

Existing land uses in the project site vicinity include single family residential to the west and northeast, agricultural to the northwest, and commercial/retail, single family residential, and some apartment buildings and condominiums to both the south and southwest. To the immediate south the Alameda Creek Flood Control Channel and EBRPD regional trail. BART and the Western Pacific Railroad alignments lie to the east. The introduction of a new land use on the site is compatible with its surrounding land uses and thus would not result in any impacts.

- d) Affect agricultural resources or operations (e.g., impacts to soils or farmlands, or impacts from incompatible land uses)? ☐ ☐ ☐ ☒

No agricultural operation currently occurs on the project site. Moreover, EBRPD has not had any agricultural leases on the site in the last four years. Therefore, the project would have no effect on agricultural operations.

- e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)? ☐ ☐ ☐ ☒

No division of the physical arrangement of an established community would occur, since the existing physical features of the site would not be altered as a result of the proposed project.

II. POPULATION AND HOUSING. Would the proposal:

- a) Cumulatively exceed official regional or local population projections? ☐ ☐ ☐ ☒

The proposed project does not involve any housing, nor does it directly or indirectly influence housing. Therefore, no changes to local or regional populations would occur as a result of the project.

- b) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)? ☐ ☐ ☐ ☒

No substantial growth would be induced as a result of project implementation. The project does not include any development of new housing or infrastructure. The communities located in the surrounding

<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
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areas are largely built out and will keep the small community character with which they currently identify themselves.

1) City of Fremont, *Fremont General Plan*, May 1991.

- c) Displace existing housing, especially affordable housing? ☐ ☐ ☐ ☒

The proposed project would not involve any actions that would result in the displacement of any housing.

III. GEOLOGIC PROBLEMS. Would the proposal result in or expose people to potential impacts involving:

- a) Fault rupture? ☐ ☒ ☐ ☐

The Hayward Fault, 0.5 miles from the site, could present a potential threat to recreational users on and around the shoreline, particularly near steep slopes. Additionally, there are other major active, as well as potentially active, faults near the site, which range from 15.5 to 40 miles in proximity to the site. Potentially significant impacts related to fault ruptures will be analyzed in detail in the EIR.

- b) Seismic ground shaking? ☐ ☒ ☐ ☐

Due to the Hayward Fault close proximity, high levels of ground shaking may be expected if an earthquake's epicenter originates near the site. This potentially significant impact will be analyzed in detail in the EIR.

- c) Seismic ground failure, including liquefaction? ☐ ☐ ☒ ☐

All grading and steep slope trimming on the ponds would be performed as part of the Quarry Pits Rehabilitation Project proposed by ACWD prior to the implementation of the proposed project. However, as some potential slope instability may remain along the northwest slope of the west lake, it may expose people to potential hazards in the event that seismic ground failure did occur. Because it would be very unlikely that such a hazard would in fact occur, the impact is considered to be less than significant.

- d) Seiche, tsunami, or volcanic hazard? ☐ ☐ ☐ ☒

Because of the sizes of the pits and, to a certain extent, their depths, the likelihood of large seiche waves over a few feet high occurring on the site is very small. Similarly, the site is of sufficient elevation to be well above the potential run-up of tsunami in the San Francisco Bay.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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e) Landslides or mudflows?

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The Quarry Pits Rehabilitation Project, proposed by ACWD, is expected to have a beneficial effect on the topography of the site, since it will significantly reduce the hazards of slope failure. Therefore, earthquake induced slope failure (landslides) would be significantly reduced as a result of ACWD's project. Since the EBRPD's project would not alter the topography of the site, no significant impact pertaining to landslides or mudflows would occur. However, as part of the northwest slope of the west lake could fail - the hazardous degree of which cannot be quantified - it may expose people to a landslide, if it were to occur. Because the likelihood of such an event would be very small, the impact is considered to be less than significant.

f) Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill?

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This project would mainly involve fine grading, which would be applicable to all lawns and trail areas as well as any other additional site areas where EBRPD has a facility. The District may include some coarse grading in the beach area, although this action would only be temporary during the construction phase. The ACWD's Quarry Pits Rehabilitation Project, to be concluded prior to commencement of the proposed project, is expected to do the majority of the coarse grading work, by the end of which issues of erosion potential, unstable soil conditions, and topography reconfiguration would have been addressed.

g) Subsidence of the land?

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The proposed project would result in no subsidence of the land. All coarse grading and excavating activities would be done during the implementation phase of the Quarry Pits Rehabilitation Project, which will have a beneficial effect on the site by creating the preliminary topography that could be used for a future park.

h) Expansive soils?

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No expansive soils exist at the project site. Therefore, no impact associated with expansive soils would occur as a result of the proposed project.

i) Unique geologic or physical features?

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This project would not alter any unique geologic or physical features of the site, because when the Quarry Pits Rehabilitation Project is completed, it will have created the preliminary topography that would be used in the Alameda Quarries Park Project. Any changes to the site's geologic and physical features would be in place following ACWD's project completion.

<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
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IV. WATER. Would the proposal result in:

- a) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff? ☐ ☒ ☐ ☐

The impact is considered to be potentially significant, because pavement of the two planned parking lots would reduce absorption rates, alter drainage patterns, and increase impervious surfaces. This potentially significant impact will be analyzed in detail in the EIR.

- b) Exposure of people or property to water related hazards such as flooding? ☐ ☐ ☒ ☐

Water in the project area is controlled by ACWD as a groundwater recharge facility. The project area is outside of the 100 year flood zone. The project will not expose people or property to water related hazards such as flooding.

- c) Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen or turbidity)? ☐ ☐ ☒ ☐

During construction, and regular park operational maintenance and usage, the proposed project could potentially cause the release of hazardous materials, such as vehicle fuels, into surface water. However, EBRPD will cooperate with ACWD to store hazardous materials away from the site, conduct equipment fueling in bermed areas away from the lakes, and set up programs to educate the public about water quality protection issues. Thus, no significant discharges into surface waters or other alterations of surface water quality are expected as a result of this project.

- d) Changes in the amount of surface water in any water body? ☐ ☐ ☐ ☒

The project does not involve any activity that would cause any changes in the amount of surface water.

- e) Changes in currents, or the course or direction of water movements? ☐ ☐ ☐ ☒

The project does not involve any activity which would result in a change in currents, or the course or direction of water movements.

- f) Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capability? ☐ ☐ ☐ ☒

<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
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The project involves neither any activity that would result in a change in the quantity of groundwater nor any action that could compromise groundwater recharge capability.

- g) Altered direction or rate of flow of groundwater? ☐ ☐ ☐ ☒

Since the project does not entail any groundwater usage, no alteration of either the direction or the rate of flow of groundwater would occur as a result of the project.

- h) Impacts to groundwater quality? ☐ ☐ ☒ ☐

The project may result in potentially significant impacts to groundwater quality from hazardous fuels leaks and spills from park operational equipment and vehicle. However, as EBRPD plans to cooperate with ACWD to provide an appropriate bermed area away from the lakes for fueling maintenance vehicles and to implement programs to educate the general public about water quality protection issues, no significant impacts to groundwater quality are expected as a result of this project.

- i) Substantial reduction in the amount of groundwater otherwise available for public water supplies? ☐ ☐ ☐ ☒

The project does not involve any activity that would result in a reduction in the quantity of groundwater, since it does not involve any groundwater usage.

V. AIR QUALITY. Would the proposal:

- a) Violate any air quality standard or contribute to an existing or projected air quality violation? ☐ ☒ ☐ ☐

The project could result in a potentially significant impact on ambient quality standards by contributing to an existing air quality violation for dust (PM₁₀) in the San Francisco Bay Area Air Basin. Exceedances of the state standard occur relatively frequently in Alameda County. The main sources of PM₁₀ are vehicle movements over paved and unpaved roads and construction activities, both of which would occur, to a certain extent, during construction and operation of the park. Both Ozone (O₃) and Carbon Monoxide (CO) may be of concern as a result of project implementation. Any potentially significant impacts on ambient quality standards will be analyzed in detail in the EIR.

- b) Expose sensitive receptors to pollutants? ☐ ☐ ☐ ☒

The project would not expose sensitive receptors to pollutants, since there are no hospitals or retirement homes on the site or in its immediate vicinity.

- c) Alter air movement, moisture, or temperature, or cause any change in climate? ☐ ☐ ☐ ☒

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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The project does not involve any activities that would alter air movement, moisture, temperature, or any other change in climate.

d) Create objectionable odors?

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The small amount of grading to be done for this project (mostly fine grading) is not expected to uncover any contaminated soil that could lead to objectionable odors, since there have been no industrial operations either on the project site or in the project site vicinity. The project would not involve any activities that would generate any objectionable odors.

VI. TRANSPORTATION/CIRCULATION: Would the proposal result in:

a) Increased vehicle trips or traffic congestion?

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The proposed project would generate vehicle trips on weekends and, to a lesser extent, on weekdays. Potentially significant impacts associated with increased traffic congestion will be analyzed in detail in the EIR.

b) Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

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The project may result in hazards to safety on currently unsignalized intersections (e.g., Alvarado Niles Road at Osprey Drive and Alvarado Niles Road at Fox Avenue). Any potentially significant impacts will be analyzed in detail in the EIR.

c) Inadequate emergency access or access to nearby uses?

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The project would attract a substantial number of people to the site. Park design incorporates emergency connections on Isherwood Way, Quarry Lakes Drive and Alameda Regional Trail which would provide sufficient emergency access. Thus, the project would not create significant impacts due to inadequate emergency access.

d) Insufficient parking capacity on-site or off-site?

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Provision for parking would be tied to development of park facilities. As both land and funding become available, parking capacity of up to 1,500 vehicles would be achieved at project build-out. The timing, and balancing, of implementation of recreational opportunities and provision for parking would need to be monitored. Projected parking demand and supply and potentially significant impacts associated with any unmet demand will be analyzed in detail in the EIR. Adequate parking capacity is important to contain parking effects on site.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Hazards or barriers for pedestrians or bicyclists?	☐	☒	☐	☐

As a result of the increased vehicle trips the project would generate and the current unsignalized control at intersections in proximity to the project site, the project may create hazards for pedestrians or bicyclists. Any potentially significant impacts will be analyzed in the EIR.

f) Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☒	☐
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The City of Fremont's General Plan expresses its adopted policy to promote strategies that discourage automobile dependence and encourage the implementation of transportation alternatives that can shift current trends to more environmentally and financially sound options (Goal F-11, "Increased Transportation Alternatives and Reduced Dependency on the Automobile"). EBRPD is committed to facilitating transit access alternatives, including potential for AC Transit service to the park, and shuttle routes to/from the Fremont and/or Union City BART stations. Implementation of measures to encourage the use of public transit, rapid transit and other non-auto travel modes will avoid any significant conflicts with Fremont's adopted policies.

g) Rail, waterborne, or air traffic impacts?	☐	☐	☒	☐
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Union Pacific and Southern Pacific railroad tracks cross Decoto Road at-grade east of the project site. As a result of project implementation, there would be increased traffic crossing these tracks. The anticipated level of traffic crossing the railroad tracks, however, would not be expected to result in any potentially significant impacts. Any potential impacts will be analyzed in the EIR.

VII. BIOLOGICAL RESOURCES. Would the proposal result in impacts to:

a) Endangered, threatened or rare species or their habitats (including but not limited to plants, fish, insects, animals, and birds)?	☐	☐	☐	☒
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The project would attract a substantial number of people to the site, where various recreational activities would occur. However, EBRPD proposes to establish a "Natural Unit" consistent with EBRPD Master Plan criteria with limited access which will protect wildlife in the project area. Special status species will not be impacted.

b) Locally designated species (e.g., heritage trees)?	☐	☐	☐	☒
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No locally designated species exist at the project site. Therefore, project implementation would not result in any impacts on locally designated species.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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- c) Locally designated natural communities
(e.g., oak forest, coastal habitat, etc.)?

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Extensive vegetation removal would be performed as part of the Quarry Pits Rehabilitation Project proposed by ACWD prior to implementation of the proposed project. Some slope revegetation is planned as part of ACWD's project and it is expected that natural revegetation will also occur. It is probable that the wildlife species that currently use the area as habitat will return. The EBRPD proposes to establish a "natural area" with limited public access, facilitate the installation of interpretive signs, and designate trail closures to protect plant and wildlife communities where appropriate. Due to the nature of recreational activities that would occur on the site, significant impacts within these habitat are not expected.

- d) Wetland habitat (e.g., marsh, riparian and vernal pool)?

☐	☐	☐	☒
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The only wetland habitat occurring on the site is found in an area that would be part of a designated Natural Unit having limited public access. For this reason, the project would not have an effect on wetland habitat. No impacts would occur as a result of project implementation.

- e) Wildlife dispersal or migration corridors?

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No significant changes in wildlife dispersal or migration corridors is expected as a result of this project. However, the EIR will analyze potential mitigations that could lessen these impacts.

VIII. ENERGY AND MINERAL RESOURCES. Would the proposal:

- a) Conflict with adopted energy conservation plans?

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The project does not involve any activities that would conflict with any adopted energy conservation plans. No impacts would occur as a result of project implementation.

- b) Use non-renewable resources in a wasteful and inefficient manner?

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The project would not involve any activities that would wastefully or inefficiently use any non-renewable resources. No impacts would occur as a result of project implementation.

- c) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?

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<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
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The project would not involve any activity that would alter the availability of any mineral resources. No impacts would occur as a result of project implementation.

IX. HAZARDS. Would the proposal involve:

- a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)? ☐ ☐ ☒ ☐

The project does not involve any activity that would entail the use of any chemicals or radiation. EBRPD plans to cooperate with ACWD to provide appropriate bermed areas to refuel maintenance and construction vehicles and equipment away from the lakes to avoid accidental spills and leaks. EBRPD will use Integrated Pest Management (IPM) techniques to get rid of unwanted pests, weeds, and insects. Because EBRPD would use minimal or no pesticides at all on the site, the specific impact of IPM-related releases would be negligible. Significant impacts from a risk of accidental explosion or release of hazardous substances are not expected as a result of this project.

- b) Possible interference with an emergency response plan or emergency evacuation plan? ☐ ☐ ☒ ☐

The City of Fremont is committed to providing adequate and timely responses to emergencies when they occur. As described above adequate access to public roads is provided for in project design. In addition project design provides for emergency vehicle access to all parts of the park. The project will provide emergency access adequate to adopted emergency response plans and/or emergency evacuation plans in the City of Fremont.

- c) The creation of any health hazard or potential health hazard? ☐ ☐ ☐ ☒

The proposed project would not involve any activities that would create any health hazards or potential health hazards. No impacts would occur as a result of project implementation.

- d) Exposure of people to existing sources of potential health hazards? ☐ ☐ ☒ ☐

The proposed project would not involve any activities that would expose people to existing sources of potential health hazards. No impacts would occur as a result of project implementation.

- e) Increased fire hazard in areas with flammable brush, grass, or trees? ☐ ☐ ☒ ☐

The use of barbecues would be restricted to landscaped areas in the recreation unit. Significant impacts due to increased fire hazards are not expected due to this project.

<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
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X. NOISE. Would the proposal result in:

- a) Increases in existing noise levels?

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As a result of the project's proposal to allow public access into the site, increases in the existing noise levels are expected due to vehicular noise and recreational activities that will take place on the site. Any potentially significant impacts will be analyzed in detail in the EIR.

- b) Exposure of people to severe noise levels?

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The project does not involve any activities that would expose people to severe noise levels. Amplified music or other events will not be allowed in the project area.

XI. PUBLIC SERVICES. Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:

- a) Fire protection?

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The proposed project would introduce people and barbecue activities to the site. However, barbecues would be limited to landscaped areas within the recreation unit. Significant impacts are not expected as a result of this project.

- b) Police protection?

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The proposed project would introduce public access to the site. In addition, it will improve trail access and usage, provide two parking lots, and a variety of opportunities for recreational activities. In doing so, the project could increase the demand for security and police protection services. Any potentially significant impacts will be analyzed in detail in the EIR.

- c) Schools?

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The project pertains to the creation of recreational facilities. As such, it is not expected to have any effect upon or result in the need for new school services. No impact would occur as a result of project implementation.

- d) Maintenance of public facilities, including roads?

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Because the project would increase the number of trips in the area, its implementation may result in the need for additional maintenance of roads. The impacts of project implementation would be less than significant.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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c) Other governmental services?

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The project is not expected to have an effect upon, or result in a need to alter any other governmental services. No potentially significant impacts would occur as a result of project implementation.

XII. UTILITIES AND SERVICE SYSTEMS. Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:

a) Power or natural gas?

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The proposed project would increase the demand for electricity on the site to a small degree by creating restrooms and facilities that may require lighting. In addition, EBRPD may choose to light the two proposed parking lots for safety purposes in the future. Such demands for electricity would neither constitute a substantial demand, nor would they result in a need for new systems and supplies or in a substantial alteration of the present electric utility systems. The impacts of project implementation would be less than significant.

b) Communications systems?

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The project may result in a demand for extension of phone services for park staff and public phones. The impacts of this service implementation would be less than significant.

c) Local or regional water treatment or distribution facilities?

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The project would not involve any activities that would adversely affect or alter any local or regional water treatment or distribution facilities. No impact would occur as a result of project implementation.

d) Sewer or septic tanks?

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The project proposes to construct up to six restrooms, all of which would be hooked to the existing sewer mainline located in the west portion of the site. The project will comply with Union Sanitary District requirements for such facilities. No potentially significant impacts are expected from the addition of these restrooms.

e) Storm water drainage?

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The project involves paving land surface to build two parking lots. As a result, storm water drainage systems may be adversely affected because of an increase in impervious surfaces, alteration in drainage patterns, and reduced absorption rates. However, EBRPD would implement plans to collect stormflows from the paved parking areas and provide drainage to the Alameda County Flood Control system. Additionally, wherever feasible, surface flows from irrigated areas would be collected as part of the storm drainage system. No potentially significant impact would occur as a result of project implementation.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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f) Solid waste disposal?

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EBRPD management practices include implementation of comprehensive litter management systems. For this project the system would include, but not be limited to, strategies such as education, recycling, lake protection, regular litter removal, and separate collection facility. No significant impacts are expected from solid waste disposal practices associated with this project.

g) Local or regional water supplies?

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The project would not involve any activities that would adversely affect any local or regional water supplies. No impact would occur as a result of project implementation.

XIII. AESTHETICS. Would the proposal:

a) Affect a scenic vista or scenic highway?

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The Alameda Quarries Park project is located in a relatively isolated area and is surrounded by levees that partially obscure the site from adjacent properties. The project would involve the construction of several park related facilities, which are to include, but not be limited to: two parking lots, picnic areas, one one-story building with restrooms and change areas, concession facilities, and additional restrooms throughout the park. In addition, the project may involve the construction of a fence, lifeguard facilities, and boat launch areas. Although the project would change the overall appearance of the site, it would not affect any scenic vistas of scenic highways. The impact of project implementation is expected to be less than significant.

b) Have a demonstrable negative aesthetic effect?

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Although the project would alter the overall appearance of the site, it would enhance the aesthetic quality of the site with the proposed park-like character. Therefore, no impact would occur as a result of project implementation.

c) Create light or glare?

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The proposed project would involve extending electrical utilities to recreation facilities. These may include, but would not be limited to, beach and picnic area restrooms, service yard, entry kiosk services, boat launch services, fish cleaning area, food services, fire hydrants, and irrigation systems. Because all outdoor lighting would be installed and used so as not to interfere with community comfort, would be consistent with local ordinances, and would not be considered substantial, the impacts of light and glare would be less than significant.

<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
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XIV. CULTURAL RESOURCES. Would the proposal?

- a) Disturb paleontological resources? ☐ ☐ ☐ ☒

No known paleontological resources have been identified within the proposed project area. No impact would occur as a result of project implementation.

- b) Disturb archaeological resources? ☐ ☐ ☐ ☒

No known archaeological resources have been identified on the proposed project area. No impact would occur as a result of project implementation.

- c) Affect historical resources? ☐ ☐ ☐ ☒

The Quarry Pits Area is historically important because it is the site of the first gravel quarry operation in California. The site has already been drastically disturbed as a result of the longevity of the quarry operations. For that reason, the proposed project would not adversely affect any historical resources. No impact would occur as a result of project implementation.

- d) Have the potential to cause a physical change which would affect unique ethnic cultural values? ☐ ☐ ☐ ☒

The project would not involve any activities that could potentially involve a physical change which would in turn affect unique ethnic or cultural values. No impact would occur as a result of project implementation.

- e) Restrict existing religious or sacred uses within the potential impact area? ☐ ☐ ☐ ☒

The project would not involve any activities that could potentially restrict existing religious or sacred uses within the potential impact area. No impact would occur as a result of project implementation.

XV. RECREATION. Would the proposal:

- a) Increase the demand for neighborhood or regional parks or other recreational facilities? ☐ ☐ ☐ ☒

The project, as a recreational proposal, would fulfill the demand for recreation facilities in the region served by EBRPD. It would, in fact, reduce the demand for regional parks and recreational facilities by providing a park with such facilities. No impact would occur as a result of project implementation.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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- b) Affect existing recreational opportunities?

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The project would beneficially affect recreational opportunities by establishing a regional park with various recreational facilities. No adverse impact would occur as a result of project implementation.

XVI. MANDATORY FINDINGS OF SIGNIFICANCE

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

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The project as designed will protect and enhance fish and wildlife populations and historical aspects of the site.

- b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?

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Although the project may have the potential to achieve short-term, to the disadvantage of long-term environmental goals, the City of Fremont has expressed its strong support for the development of Phase II of the proposed Alameda Creek Quarries Regional Recreation Area. As a result, project implementation is expected to have a less than significant impact on long-term environmental goals.

- c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

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The proposed project may have cumulatively considerable impacts when viewed in conjunction with other projects in the region. Any potentially significant impacts will be analyzed in detail in the EIR.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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- d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

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The project may have environmental effects which may cause substantial adverse effects on human beings. These pertain to the geologic, water, and transportation/circulation, as specified in this Initial Study. Any potentially significant impacts will be analyzed in detail in the EIR.

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